British Columbia Plumbing Code

Change Process

Change Proposals for the 1990 B.C.Plumbing Code

June 1991

Building Standards Branch
Ministry of Municipal Affairs, Recreation and Culture
The Honourable Graham Bruce, Minister

BC
B86
D:B776
1941
c.3

Table of Contents

	Page
Preface	i
Legend	ii
Plumbing Code Change Proposals And P.C.A.C. Recommendations	1 to 71
Appendix	A.1 to A.6

1990 B.C. Plumbing Code Change Proposals and Plumbing Code Advisory Committee Recommendations

Preface

This publication includes proposed Plumbing Code changes, the recommendations of the British Columbia Plumbing Code Advisory Committee (P.C.A.C.) and a Challenge/Amendment form which is attached at the end of this booklet. Also included are references from the 1985 B.C. Plumbing Code that are to be a part of the 1990 B.C. Plumbing Code.

The Lower Mainland Plumbing Code Committee and the Vancouver Island Plumbing Code Committee met over several months and many of the code change proposals are as a result of their deliberations.The 1990 Canadian Plumbing Code reference numbers have been used for the most part but occasionally references are made to the 1985 British Columbia Code.

The British Columbia Plumbing Code Advisory Committee (a twelve member committee representing industry) has reviewed all the proposals and their recommendations are shown on the following pages.

Challenges or Amendments should be made with respect to the recommendations of the (P.C.A.C.), not the original code change proposal. The 1990 B.C. Plumbing Code will be based on the P.C.A.C.recommendations. It must be borne in mind however; that the Plumbing Code is a provincial regulation and the ultimate authority for acceptance of changes rests with the Ministry of Municipal Affairs, Recreation and Culture.
A public code change forum will be held in October, 1991. There will be an opportunity for public debate and final voting by the P.C.A.C. will take place.

The code changes will be separated into two separate blocks. The first block will comprise proposals that have not been challenged and the second block will consist of the remaining proposals.

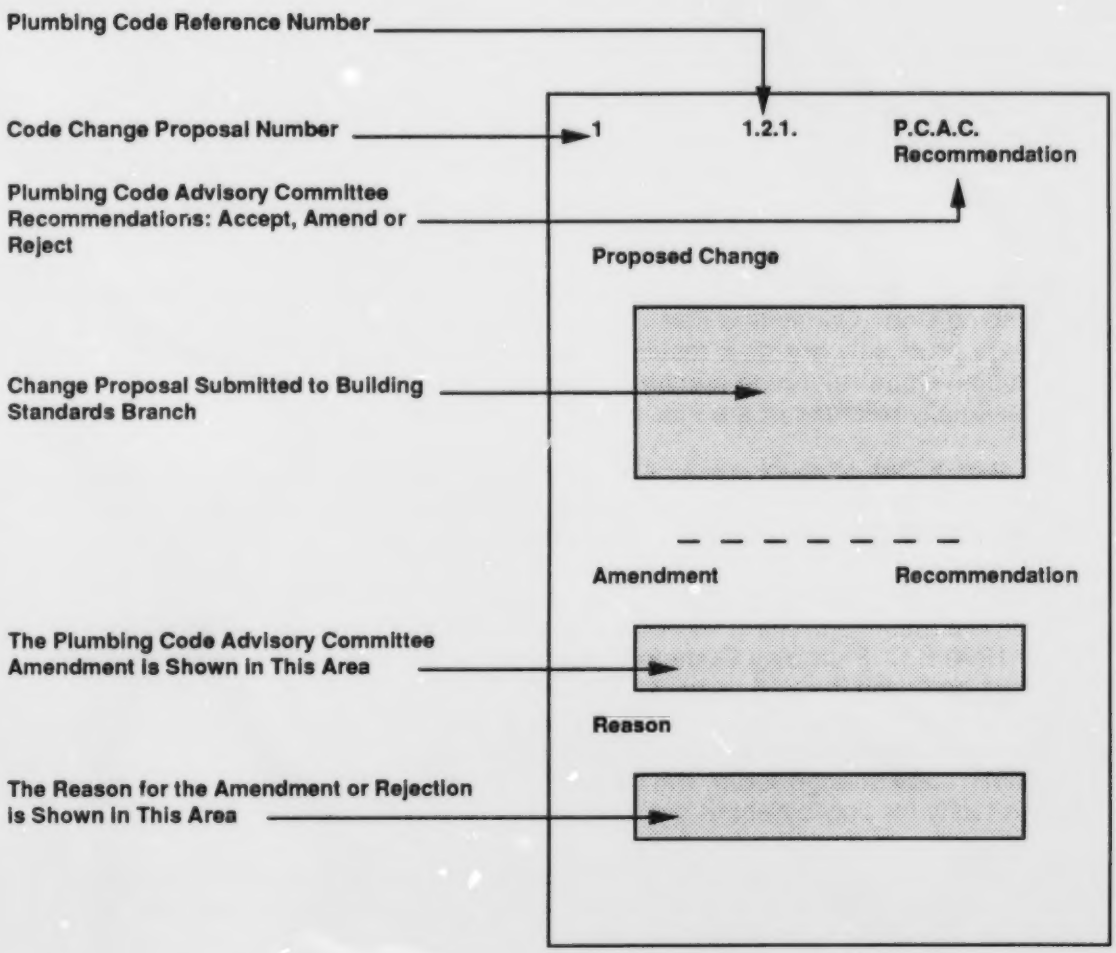
Please retain this document for future reference as all challenges, amendments and recommendations will be cross referenced to these original proposals.

<u>Challenge/Amendment submissions must be received and/or postmarked not later than Friday July 5, 1991. Late submissions will be rejected.</u>

92-03459/

Plumbing Code Change Process

Legend


Plumbing Code Reference Number
Code Change Proposal Number
1
1.2.1.
P.C.A.C. Recommendation
Plumbing Code Advisory Committee Recommendations: Accept, Amend or Reject
Proposed Change
Change Proposal Submitted to Building Standards Branch
Amendment
Recommendation
The Plumbing Code Advisory Committee Amendment is Shown in This Area
Reason
The Reason for the Amendment or Rejection is Shown in This Area

This Layout is Shown in Order to Provide an Explanation of how Information is Presented in the Following Pages. The Diagram Shows Proposed Code Changes From the Public, Recommendations of the B.C. Plumbing Code Advisory Committee and the Order in Which the Information is Presented.

1 **1.2.1.** **P.C.A.C. Recommendation: Accept**

Proposed Change
1.2 SCOPE

1.2.1. This code specifies the minimum requirements for

(a) Drainage systems for water-borne wastes and storm water for buildings to the point of connection with public services or other acceptable disposal point.

Reason
Plumbing system may terminate into a private disposal system.

Submitted by: **Ralph Kidd**
4949 Canada Way
Burnaby, B.C.
V5G 1M2

Recommendation: Accept

Amendment

Reason

---

2 **1.3.2.** **P.C.A.C. Recommendation: Amend**

Proposed Change
Add definition of Bathroom Group as used currently in BCPC.

Bathroom group means one lavatory basin, one direct flush water closet and one bathtub or maximum 2 head shower drain.

Reason
"Bathroom group" is used in Tables and should be defined to prevent undersized piping.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Amend

Amendment
Bathroom group means one lavatory basin, one water closet and one bath tub or maximum two head shower drain.

Reason
The type of w.c. should not be noted in the definition. Either a flush tank w.c. or a flush valve w.c. could be used in a public or private bathroom group.

---

3 **1.3.2. DEFINITIONS.** **P.C.A.C. Recommendation: Reject**

Proposed Change
Branch shall mean, that part of a pipe system which extends from a water main to one or more fixtures.

Reason
No definition for branch on water piping.

Submitted by: **Ralph Kidd**
4949 Canada Way
Burnaby, B.C.
V5G 1M2

Recommendation: Reject

Amendment

Reason
Proposal #4 defines "Branch".

---

4 **1.3** **P.C.A.C. Recommendation: Amend**

Proposed Change
Branch Pipe in Water Distribution System

A branch pipe is any part of the piping system other than the main or riser, which extends to one or more *fixtures*.

Reason
No definition for branch of water piping.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver B.C.
V7M 1H9

Recommendation: Amend

Amendment
Branch as applying to a *water distribution system* means any part of the piping system other than the *main* or *riser* which serves one or more *fixtures* or *outlets*.

Add definition:
Outlet means an aperture designed to serve a *fixture* which is directly or indirectly connected to a *water distribution system*.

Reason

---

5 **1.3.2. DEFINITIONS.** **P.C.A.C. Recommendation: Reject**

Proposed Change
1.3.2. DEFINITIONS

(Check valve with atmospheric port) means an acceptable assembly of check valves and an atmospheric port.

Reason
No reference for a check valve with atmospheric port.

Submitted by: **Ralph Kidd**
4949 Canada Way
Burnaby, B.C.
V5G 1M2

Recommendation: Reject

Amendment

Reason
CSA standards define backflow prevention devices.

---

6 **1.3.2.** **P.C.A.C. Recommendation: Reject**

Proposed Change
Continuous vent means a vent pipe that serves two or more fixtures or is an extension of a wet vent (see Appendix A).

Appendix A also needs revising as attached.

Reason
Definition does not correlate with sketch on page 92 (A.5.8.3. & 5.8.4.).
One or the other must be changed.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Reject

Amendment

Reason
Adopt venting provisions in 1985 BCPC.

---

7 **1.3.2. DEFINITIONS.** **P.C.A.C. Recommendation: Reject**

Proposed Change
1.3.2. DEFINITIONS

(Double check valve) means an acceptable assembly of shutoff valves, check valves and test cocks.

Reason
No reference for a double check valve with test cocks.

Submitted by: **Ralph Kidd**
4949 Canada Way
Burnaby, B.C.
V5G 1M2

Amendment **Recommendation: Reject**

Reason
CSA standards define backflow prevention devices.

---

8 **1.3** **P.C.A.C. Recommendation: Amend**

Proposed Change
MAIN - The principal artery of the system or continuous piping of which branches may be connected.

Reason
Code does not provide definition for "main".

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Amend**

Main as applying to a *water distribution system* means the principal artery of the system or continuous piping to which *branches* or *risers* may be connected.

Reason

---

9 **1.3. MAIN.** **P.C.A.C. Recommendation: Reject**

Proposed Change
Subsection 1.3. MAIN

The principal artery of a system of continucus piping to which branches may be connected.

Reason
Code does not provide definition for "Main".

Submitted by: **Ralph Kidd**
4949 Canada Way
Burnaby, B.C.
V5G 1M2

Amendment **Recommendation: Reject**

Reason
Similar to proposal #8.

---

10 1.3.2. **P.C.A.C. Recommendation: Amend**

Proposed Change
Add BCPC definition - as amended:

Public washroom means a room used by employees, occupants, visitors or patrons in or about any public premises; and to washrooms which may be kept locked but where several occupants or employees possess keys for or have access to the rooms.

Reason
Section 1.7.1. (2) requires a special toilet seat in a public washroom and definition required to eliminate confusion or abuse.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Amend

Amendment
Change as follows. Add the word "bathroom"
Public washroom or *bathroom* means a room used by employees, occupants, visitors, or patrons in or about any public premises; and to washrooms or bathrooms which may be kept locked but where several occupants, or employees posses keys for or have access to the rooms.

Reason

---

11 1.3.2. **P.C.A.C. Recommendation: Reject**

Proposed Change
1.3.2. DEFINITION

(Pressure vacuum breaker) means an acceptable assembly of shutoff valves, check valves, test cocks and a vacuum relief valve.

Reason
No reference for a pressure vacuum breaker.

Submitted by: **Ralph Kidd**
4949 Canada Way
Burnaby, B.C.
V5G 1M2

Recommendation: Reject

Amendment

Reason
CSA Standards define backflow prevention devices.

---

12 1.3.2. **P.C.A.C. Recommendation: Reject**

Proposed Change
(Reduced pressure vacuum preventer) means an acceptable assembly of shutoff valves, test cocks and a pressure differential relief valve.

Reason
No reference for a reduced pressure vacuum preventer.

Submitted by: **Ralph Kidd**
4949 Canada Way
Burnaby, B.C.
V5G 1M2

Recommendation: Reject

Amendment

Reason
CSA Standards define backflow prevention devices.

---

13 1.3 **P.C.A.C. Recommendation: Reject**

Proposed Change
RISER - A water supply pipe which extends vertically one full storey or more to convey water to branches or *fixtures*
Reason
No definition in Plumbing Code for riser.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver B.C.
V7M 1H9

Amendment **Recommendation: Reject**

Reason
Retain definitions for riser that is in the CPC New definition would add unnecessarily to construction costs.

---

14 1.3.2. **P.C.A.C. Recommendation: Accept**

Proposed Change
"Soil or waste stack" DELETE AND SUBSTITUTE:

"Soil or waste stack" means a vertical soil or waste pipe that passes through one or more storeys.
Reason
Horizontal offsets and horizontal piping should be sized as horizontal piping and not as vertical piping.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

15 1.4 **P.C.A.C. Recommendation: Reject**

Proposed Change
Existing Plumbing Code Appeals, etc., which do not form part of the 1990 Plumbing Code, but are still considered relative to the Plumbing Code, be consolidated and indexed and made available in a separate binder at the same time as the new Plumbing Code.
Reason
Electrical Safety Branch and Gas Safety Branch issue a separate binder containing the bulletins relative to the appropriate Code, and can be considered as a good example of this proposal.

Plumbing industry would welcome implementation of this format with the new Plumbing Code.

Maintaining and updating of all existing Plumbing Code Appeals etc., which are still in effect, is becoming unmanageable for enforcement offical, impossible for plumbing contractors and designers, and others related to the plumbing industry.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver B.C.
V7M 1H9

Amendment **Recommendation: Reject**

Reason
Not a code item. Refer to Building Standards Branch.

---

16 1.4.1.(1). **P.C.A.C. Recommendation: Accept**

Proposed Change
DELETE
Reason
There is no Provincial Authority having jurisdiction. The A.H.J. is authorized to approve equivalents in the BCBC. The Appeal Board does not interpret into Building Code equivalents - it is not needed for the BCPC. Surely the same person can make all decisions.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Accept

Amendment
Reason

---

17 1.5. **P.C.A.C. Recommendation: Accept**

Proposed Change
Subsection 3.6.4 of Part 3 and Section 9.3.2 of B.C.B.C be included in the appendix of the B.C.P.C.
Reason
To consolidate plumbing requirements in the Plumbing Code.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver B.C.
V7M 1H9

Recommendation: Accept

Amendment
Reason

---

18 1.5 & 2.2 **P.C.A.C. Recommendation: Amend**

Proposed Change
Fixtures which are intended for use by persons with disabilities are required to conform with Section 3.7 of the B.C. Building Code.

Reason
Plumbing Code should reference this standard.

To indicate to users of the Plumbing Code the installation requirements as provided in the B.C. Building Code to ensure the safe use of the plumbing fixtures by persons with disabilities.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver B.C.
V7M 1H9

Recommendation: Amend

Amendment
Diagrams that affect plumbing installations and that are included in the Section 3.7 Handbook are to be included in the plumbing Code Appendix.
Reason
Only items affecting plumbing installations should be referenced.

---

19 1.6.4. **P.C.A.C. Recommendation: Accept**

Proposed Change
DELETE
Reason
There is no valid reason why one service connection cannot serve more than one building on one lot.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Accept

Amendment
Reason

---

20 **1.8.1.(1)(a).** **P.C.A.C. Recommendation: Accept**

Proposed Change
1.8.1. CONTENTS

(1) Plumbing drawings and related documents submitted with the application for a plumbing permit shall show :

(a) The location and size of every building drain and of every trap and cleanout fitting that is on a building drain *or building sewer.*

Reason
Plans submitted for approval should show all site piping.

Submitted by: **Ralph Kidd**
4949 Canada Way
Burnaby, B.C.
V5G 1M2

Amendment **Recommendation: Accept**

Reason

---

21 **1.8.1.(2)** **P.C.A.C. Recommendation: Amend**

Proposed Change
Add the following:
1.8.1.(2) Plumbing drawings and related documents shall be prepared by one of the following:
(a) a designer certified as a plumbing tradesman, registered in the Province of British Columbia,
(b) a designer certified in plumbing engineering by the American Society of Plumbing Engineers, British Columbia section,
(c) a designer certifed as a technologist or technician by the Applied Science Technologists and Technicians of British Columbia,or
(d) a designer registered as a professional engineer in the Province of British Columbia.

Reason
To enhance public safety by defining those individuals that are acceptable plumbing designers.

Submitted by: **D.S. McDonald**
BOX 443
Saanichton B.C.
V0S 1M0

Amendment **Recommendation: Amend**

Add the following:
(e) the registered home owner residing in a single family dwelling.

Reason
Home owners should be permitted to design their own plumbing installations.

---

22 **1.9.** **P.C.A.C.**
Recommendation: Amend

Proposed Change
INSPECTION AND TESTING

(1) The authority having jurisdiction may inspect an existing plumbing system, and where there is reason to suspect that the system is not satisfactory, order it to be tested.

(2) If any part of the system has become or is in a condition that it may become dangerous or injurous to health, the owner shall make any alteration or replacement ordered in writing by the authority having jurisdiction.
(Above 2 sentences are in the 1985 BC Plumbing Code)

Reason
An inspector has the authority to have poorly maintained buildings brought up to acceptable standards.

Submitted by: **Ralph Kidd**
4949 Canada Way
Burnaby, B.C.
V5G 1M2

Recommendation: Amend

Amendment
Change title as follows:
Inspection and Testing of Existing Systems.

Reason
To differentiate between new and existing systems.

---

23 **1.9 (1) & (2).** **P.C.A.C.**
Recommendation: Amend

Proposed Change
All work shall be done in a skillful, thorough manner. Careful attention shall be paid not only to the mechanical execution of the work but also to the arrangement of the installation. Personnel performing installation, operation and maintenance work shall be properly trained in such functions.

Reason
Employers leaving non-journeyman on jobs not qualified or experienced in the trade posing as apprentices.

Submitted by: **Bill Sharp**
355 West Queens Rd.
North Vancouver, B.C.
V7N 2K6

Recommendation: Amend

Amendment
Change as follows:
Reference No. 1.11
Personnel performing installation and maintenance of plumbing systems shall:

(a) possess a British Columbia Tradesman's Qualification Certification as a plumber,

(b) be an apprentice supervised by a plumber possessing a British Columbia Tradesman's Qualification, or,

(c) be the registered home owner of a single family dwelling in which he is residing.

Reason
Clarification.

---

24 1.9.A. **P.C.A.C. Recommendation: Reject**

Proposed Change
Add to Table 1.10.A. (CPC 1990):
ASTM Standards F628-88
Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent pipe with a Cellular Core.

Reason
This has been accepted by the Chairman of the Building Code Appeal Board and therefore should be referenced in the Code.

Submitted by: **M.M. Cankovic**
1748 Powell Street
Vancouver, B.C.
V5L 1H7

Amendment **Recommendation: Reject**

Reason
Acceptance by the Chairman of the Building Code Appeal Board includes more requirements than stated by the proponent.

---

25 1.9.3. **P.C.A.C. Recommendation: Amend**

Proposed Change
Renumber as 1.9.3.(1) and add:
1.9.3. (2) Manufacturers' published installation and use instructions shall apply to all products.
Reason
In many cases, manufacturers' instructions should be followed and are relied on for safe installation practices.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Amend**

Appendix 1.9
Installation Standards

One of the principle reasons that the code references product standards (e.g. CSA standards) is to provide assurance that products will perform within acceptable limits of safety when properly installed.

Proper installation of products is sometimes included in the appendix of referenced standards. Code users should be familiar with installation standards so that products will perform as intended and that manufacturer's guarantees will be in effect.

Where installation methods are not available in referenced standards. Code users should be familiar with and use manufacturer's printed installation instructions.

Reason
Information of this type should be in the Appendix rather than in the body of the Code.

---

26 2.1.1. **P.C.A.C. Recommendation: Reject**

Proposed Change
2.1.1. In addition to the requirements of this subsection, the appropriate requirements of Part 2 of the British Columbia Building Code 1990 shall apply.
Reason
To update requirements to the proposed new issue of the B.C.B.C.

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Reject**

Reason
This Article is unnecessary since 2.1.1. does apply to the B.C. Plumbing Code; and there is no need to re-state the requirements.

---

27 **1.10.A.** **P.C.A.C. Recommendation: Amend**

Proposed Change
Table 1.10.A

Issuing Agency	Document Number	Title of Document	Code Reference
CSA	B242-M1980	Groove and Shoulder Type Mechanical Pipe Couplings	2.9.4
CSA	CAN3-B281-M85	Aluminum Drain, Waste, and Vent Pipe and Components	2.7.9(1) 2.7.9(3)
*CSA	B602-M90	Mechanical Couplings for Drain, Waste, and Vent Pipe and Sewer Pipe	

Reason
Add new CSA standard.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver B.C.
V7M 1H9

Recommendation: Amend

Amendment
Change as follows:

Issuing Agency	Document Number	Title of Document
CSA	B602-M90	Mechanical couplings for drain, waste & vent pipe and sewer pipe.

Reason
CSA Standards B242 and B281 are referenced in the CPC.

---

28 **2.1.2.(2)** **P.C.A.C. Recommendation: Reject**

Proposed Change
Appendix A

Add: Sentence 2.1.2.(2)

The following examples are areas which take extra consideration when selecting the proper piping materials to convey the effluents found in these systems:

- Commercial dishwashers
- Photography labs
- Hospital labs, school labs
- Service stations
- Solda pop drainage (restaurants)

Reason
We believe that these areas should be given more attention in the Code in the hope of minimizing the mis-application of piping materials.

Submitted by: **M.M. Cankovic**
1748 Powell Street
Vancouver, B.C.
V5L 1H7

Recommendation: Reject

Amendment

Reason
This requirement is covered under Sentence 2.1.2.(2) of the CPC.

---

29 **2.1.2.(2)** **P.C.A.C.**
Recommendation: Reject

Proposed Change
Revise Sentence 2.1.2.(2) to (C.P.C. 1990) to read:

Materials and equipment used in a drainage system where excessively corrosive wastes are present, shall be suitable for the purpose. (SeeAppendix A).

Reason
We believe that these areas should be given more attention in the Code in hte hope of minimizing the mis-application of piping materials.

Submitted by: **M.M. Cankovic**
1748 Powell Street
Vancouver, B.C.
V5L 1H7

Amendment **Recommendation: Reject**

Reason
Wording in CPC is more appropriate.

---

30 **2.1.7.** **P.C.A.C.**
Recommendation: Reject

Proposed Change
2.1.7. (1) Except as provided in Sentence (2) the working pressure rating of a water service pipe shall not be less than the maximum public water main pressure at the point of connection as established by the authority having jurisdiction.

(2) Where a water service pipe pressure is controlled by an accepted pressure reducing device, the water service pipe rated working pressure shall not be less than that of the reduced pressure.

Reason

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Reject**

Reason
If pressure reducing valve fails to operate, water service pipe will be subjected to pressures exceeding pipe rating.

---

31 **2.2.2 (8).** **P.C.A.C.**
Recommendation: Reject

Proposed Change
2.2. Every water closet bowl or urinal made of other than vitreous china shall comply with the applicable requirements of CAN 3-B45.1, "Vitreous China Plumbing Fixtures."

Reason

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond B.C.
V6Y 2C1

Amendment **Recommendation: Reject**

Reason
Requirements are covered by CSA Standard B45.0.

---

32 2.2.3. **P.C.A.C. Recommendation: Accept**

Proposed Change
Delete and substitute current BCPC regulations as attached, plus Appendix.
Reason
The CPC does not reference on-site constructed showers. It is preferable to continue established procedures than rely on discretional practices. An Appendix is very helpful (see attached).

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Accept

Amendment
Reason

---

33 2.2.3.(1). **P.C.A.C. Recommendation: Reject**

Proposed Change
*2.2.3.(1) Every shower receptor, bathtub or similar sanitary fixture constructed on site shall function for its intended use and shall be designed to maintain a sanitary condition. The construction of such a fixture shall be as follows or as otherwise accepted:

(a) the fixture base shall have an acceptable waterproof liner extending to 75 mm above the finished flood level rim,
(b) liners constructed of lead sheeting shall have the upper surface protected by two coats of asphalt if placed on wood and all surfaces protected if placed on concrete.
(c) the fixture shall have acceptable surface and sub-surface drainage installed to allow all water to drain from the pan,
(d) the liner shall be water tested to the flood level rim,
(e) the sub-surface drainage weep-holes shall be provided with protection against blockage.
(f) the minimum usable area shall be 580 000 sq. mm with no dimension less than 750 mm,
(g) no material that may be harmed by moisture shall be used inside the liner,
(h) a shower door shall not open into the shower stall,
(i) except for fixtures designed for handicapped persons, the depth of the shower shall be not less than 75 mm and not more than 230 mm measured from the top of the finished receptor floor to the flood level rim.

EXCEPTIONS: The proceeding clauses do not apply to hot-tubs, recreational pools, acceptable fixtures or fixtures built on slab on grade in single family dwellings where the base is of concrete construction and the floor and curb walls are monolithic.

Reason
To provide detailed construction requirements for site built fixtures.

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond B.C.
V6Y 2C1

Recommendation: Reject

Amendment

Reason
Same requirement accepted in # 32.

---

34 2.3.1.(1). **P.C.A.C. Recommendation: Reject**

Proposed Change
2.3.1. (1) Every trap shall:
(a) have a trap seal depth of at least 38 mm and not more than 100 mm, unless accepted,
Reason

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Reject

Amendment

Reason
The phrase "unless accepted" is unnecessary. Subsection 1.4 would apply.

---

35 2.3.1.(1)(a). **P.C.A.C. Recommendation: Accept**

Proposed Change
Add "and not more than 100 mm".
Reason
An unspecified depth of seal will inhibit the free flowing capability of a trap and the self-scouring advantages.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**
Reason

---

36 2.4.2. (1). **P.C.A.C. Recommendation: Accept**

Proposed Change
. . . Sanitary T Fitting may be used to connect a Dry Vent Pipe.
Reason
Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Accept**
Reason

---

37 2.4.3. **P.C.A.C. Recommendation: Amend**

Proposed Change
Amend to read 2.4.3.(1) and ADD:

2.4.3.(2) In the direction of flow from horizontal to horizontal or from vertical to horizontal, changes of direction shall be accomplished with a fitting or combination of fittings that provide a bend with a centre line radius that is not less than twice the diameter of the piping served. (see Appendix A)

Reason
The uninterrupted free flow of sewage can only be accomplished by using bends that allow such flow. Documentation attached.

The attached proposed Appendix A will help determine centre line radius measurements.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Amend**
In the direction of flow from vertical to horizontal and in horizontal piping changes of direction in a *drainage system* shall be accomplished with one-eighth (1/8) bends or fittings with an equivalent centre line radius.

Reason
Clarification.

---

38 2.4.3. **P.C.A.C. Recommendation: Reject**

Proposed Change

2.4.3. (1) In the direction of flow from horizontal to horizontal or from vertical to horizontal, changes of direction shall be accomplished with a fitting or combination of fittings that provide a bend that has a centre line radius that is not less than twice the diameter of the piping served.

(2) a 1/4 bend that has a centre-line radius that is less than the size of the pipe shall not be used to join 2 soil-or-waste pipes.

Reason

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Reject

Amendment

Reason

Proposal #37 accepted in lieu of this proposal.

---

39 2.5.1.(2). **P.C.A.C. Recommendation: Accept**

Proposed Change

(2) Asbestos - cement pipe and fittings used underground outside a building shall conform to sentence (1) or to . . .

Reason

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Accept

Amendment

Reason

---

40 2.5.10.(1) **P.C.A.C. Recommendation: Reject**

Proposed Change

Revise Section 2.5.10.(1) and add:

(c) ASTM F628-88, "Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe with a Cellular Core."

Reason

This has been accepted by the Chairman of the Building Code Appeal Board and therefore should be referenced in the Code.

Submitted by: **M.M. Cankovic**
1748 Powell Street
Vancouver, B.C.
V5L 1H7

Recommendation: Reject

Amendment

Reason

See proposal #24.

---

41 **2.5.3.(5).** **P.C.A.C. Recommendation: Reject**

Proposed Change
(5) Concrete pipe shall not be used inside a building.

Reason

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Reject**

Reason
Concrete pipe with gasketed joints should be permitted under the building per the CPC.

---

42 **2.5.5.** **P.C.A.C. Recommendation: Reject**

Proposed Change
(3) Insert fittings for use with polyethylene pipe shall conform to ASTM D2609, "Plastic Insert Fittings for Polyethylene (PE) "Plastic Pipe."

Reason

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Reject**

Reason
To be consistent with industry requirements as specified in CPC.

---

43 **2.5.6.(1).** **P.C.A.C. Recommendation: Accept**

Proposed Change
DELETE AND SUBSTITUTE:

2.5.6.(1) PVC water pipe and fittings shall conform to CAN/CSA-B137.3 M, "Rigid Poly (Vinyl Chloride) (PVC) Pipe for pressure Applications" classified by the Standard as Schedule 40.

Reason
A pressure rating of 1100 kPa is inadequate to withstand water hammer because safety factors are not addressed by the manufacturers. The use of Schedule 40 and the non-use of Series type pipe has been commonplace for more than 20 years.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

44 **2.5.6.(4).** **P.C.A.C. Recommendation: Amend**

Proposed Change
Change the wording "in a hot water system" to read:

"for water that has been heated"

Reason
What is a "hot water system"? A heating system? What temperature is 'hot'? The CSA Standard references pressures relative to 72 degrees C. The proposal removes ambiguity.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Amend**

Change as follows:
(4) PVC water pipe and fittings referred to in Sentences (1) and (2) shall not be used for water that has been heated above 23 degrees C.

Reason
Clarification.

---

45 **2.5.8.(2).** **P.C.A.C. Recommendation: Accept**

Proposed Change
Revise to read:

2.5.8.(2) Joints in polybutylene pipe and tubing shall not be embedded in concrete or installed under a concrete floor supported by the ground.

Reason
Embedding joints should be prohibited for all slabs not just slabs-on-ground.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

46 **2.5.9.** **P.C.A.C. Recommendation: Accept**

Proposed Change
DELETE AND SUBSTITUTE:

2.5.9.(1) Plastic pipe, fittings and solvent cements used in a drainage system shall conform to:

(a) Can/CSA-B181.1-M, "ABS Drain, Waste & Vent Pipe & Pipe Fittings"
(b) Can/CSA-B181.2-M, "PVC Drain, Waste & Vent Pipe & Pipe Fittings"
(c) Can/CSA-B181.3-M, "Polyolefin Laboratory Drainage Systems", and except for within or under a building,

(d) Can/CSA-B182.1-M, "Plastic Drain & Sewer Pipe & Pipe Fittings"
(e) Can/CSA-B182.2 "Large Diameter Type PSM PVC Sewer Pipe & Fittings" SDR rating of no greater than 35

Reason
Clauses 2.5.9.(1) and 2.5.10.(1) both deal with under a building and can be combined. The current BCPC prohibits sewer quality pipe in or under a building. Quality and life expectancy of plastic sewer pipe is inadequate for long term use. Consumer considerations need protection.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

47 **2.5.9.** **P.C.A.C. Recommendation: Reject**

Proposed Change

2.5.9. (1) Except as restricted in Sentence (2) plastic pipe, fittings and solvent cement used underground outside a building or under a building in a drainage system shall conform to:

(a) . . .
(b) . . .
(c) . . .
(d) . . .

(2) Pipe and fittings conforming to clauses (c) and (d) shall not be used under a building.

Reason

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Reject**

Reason

Covered in propoal #46.

---

48 **2.5.9.(1)** **P.C.A.C. Recommendation: Reject**

Proposed Change

Revise Section 2.5.9.(1) and add:

(c) ASTM F628-88, "Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe with a Cellular Core."

Reason

This has been accepted by the Chairman of the Building Code Appeal Board and therefore should be referenced in the Code.

Submitted by: **M.M. Cankovic**
1748 Powell Street
Vancouver, B.C.
V5L 1H7

Amendment **Recommendation: Reject**

Reason

See proposal #24.

---

49 **2.5.9.(1)(c)** **P.C.A.C. Recommendation: Accept**

Proposed Change

(c) CAN/CSA B182.1-M, "Plastic Drain and Sewer Pipe and Pipe Fittings", and have a minimum pipe stiffness of 320 kPa, or

Reason

To add pipe stiffness requirements in order to establish an acceptable minimum level of performance.

Submitted by: **Doug McDonald**
333 Quebec Street
Victoria, B.C.
V8V 1X4

Amendment **Recommendation: Accept**

Reason

---

50 **2.5.9. & 2.5.10.** **P.C.A.C.**
Recommendation: Amend

Proposed Change
A.2.5.9. and A.2.5.10.

Solvent cement for transition joints between ABS and PVC non-pressure piping components is referenced in the following standards:

CAN 3-B181.1-M, "ABS Drain, Waste, and Vent Pipe and Pipe Fittings," and
CAN 3-B181.2-M, "PVC Drain, Waste and Vent Pipe and Pipe Fittings."

Solvent cement for transition joints is not intended for use as an all purpose ABS-PVC solvent cement. It is not designed for mixing of ABS and PVC piping materials and it is not a cement that is to be generally used for either material.

Transition cement is intended to be used once outside the building, underground and for joining an ABS building drain to a PVC sewer system.

Reason
To identify that transitional cements are not all-purpose cements.

Submitted by: **Doug McDonald**
333 Quebec Street
Victoria, B.C.
V8V 1X4

Recommendation: Amend

Amendment
Proposed change to A.2.5.9. and A.2.5.10.

Solvent cement for transition joints between ABS and PVC non-pressure piping components is referenced in the following standards:

CAN3-B181.1-M, "ABS Drain, Waste and Vent Pipe and Pipe fittings", and

CAN3-B181.2-M, "PVC Drain, Waste and Vent Pilpe and Pipe Fittings".

Solvent cement for transition joints is not intended for use as an all purpose ABC-PVC cement.

Transition cement is intended to be used once outside the building, underground and for joining ABC to PVC.

Reason
Editorial change.

---

51 **2.7.A.** **P.C.A.C.**
Recommendation: Reject

Proposed Change
Table 2.7.A.
Change "P" to "N" for "M Hard" in column 4.
Reason
The quality of "M" type copper tubing does not provide adequate long-term consumer assurance. BCPC currently does not approve type "M".

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Reject

Amendment

Reason
Covered under proposal #52.

---

52 2.7.A.

P.C.A.C. Recommendation: Accept

Proposed Change
Table 2.7.A.
Change P to N @ M Hard Copper/ Water Distribution System/ Above Ground. (Column 4)
Reason

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Accept

Amendment

Reason

---

53 2.8.2.

P.C.A.C. Recommendation: Accept

Proposed Change
(4) For all copper tube installed underground outside the building or underground inside the building, the joints shall be flared, or the joints shall be brazed using brazing alloy from the American Welding Society AWS-BCuP range.
Reason

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Accept

Amendment

Reason

---

54 2.8.2.(3)

P.C.A.C. Recommendation: Reject

Proposed Change
Solders and fluxes having a lead content in excess of 0.2 percent shall not be used.

Reason
I believe that it would be more prudent to remove the approval of lead solders entirely. This would help to eliminate the possibility of its use in the following instances
1. Uninformed use by homeowner.
2. Inadvertent use by plumber (two similar spools in tool box)
3. "Using 50/50 when 95/5 runs out"
4. Capping 95/5 joint with 50/50.
5. Outright noncompliance

Submitted by: **Peter Hollo**
601 West Broadway
Vancouver, B.C.
V5Z 4C2

Recommendation: Reject

Amendment

Reason
This proposal will not prevent the mis-use of lead solders.

---

55 2.9.11. **P.C.A.C.**
Recommendation: Accept

Proposed Change
Delete in total
Reason
Vent flashings were considered by the previous PAB to be part of a roof system and not part of a plumbing system. Regulations should be in the Building Code.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**
Reason

---

56 2.9.3.(1). **P.C.A.C.**
Recommendation: Accept

Proposed Change
2.9.3. (1) Every plug, cap, nut or bolt that is intended to be removable from a ferrous fitting shall be of an acceptable non-ferrous material.
Reason
Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Accept**
Reason

---

57 2.9.4. **P.C.A.C.**
Recommendation: Accept

Proposed Change
2.9.4. Mechanical Pipe Couplings.

(1) Groove and shoulder type mechanical pipe couplings shall conform to CSA B242-M, "Groove and Shoulder Type Mechanical Pipe Couplings".

(2) Mechanical couplings for DWV and Sewer pipe shall conform to CAN/CSA B602-M, "Mechanical Couplings for Drain, Waste, and Vent Pipe and Sewer Pipe."

Reason
Add new CSA generic standard for pipe couplings that also includes transition couplings.

Submitted by: **Doug McDonald**
333 Quebec Street
Victoria, B.C.
V8V 1X4

Amendment **Recommendation: Accept**
Reason

---

58 3.2.3. **P.C.A.C. Recommendation: Amend**

Proposed Change
Add: 3.2.3. (3) Aluminum DWV pipe shall not be used with a screwed joint.
Reason
Pipe not acceptable for this use.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Amend

Amendment
Change as follows:

3.2.3.(3) Aluminum DWV pipe shall not be threaded.

Reason
Clarification.

---

59 3.2.4. **P.C.A.C. Recommendation: Accept**

Proposed Change
(1) In making a soldered joint the suface to be soldered shall be cleaned bright and the joint shall be properly fluxed, made with solder and throughly cleaned of all residue.

(2) Self cleaning acid type fluxes shall not be used for domestic water supply systems.
Reason
Acid fluxes can weaken joint and leave residue.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Accept

Amendment

Reason

---

60 3.2.5. **P.C.A.C. Recommendation: Accept**

Proposed Change
Add: (3) Aluminum DWV pipe shall not be flared.
Reason
Pipe not suitable for this type of joint.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Accept

Amendment

Reason

---

61 3.3. **P.C.A.C. Recommendation: Reject**

Proposed Change
Gasketed push on and mechanical joints on pressure piping without special locking shall be rodded or provided with thrust blocks to prevent separation of joints. (see appendix).

Cadium coated rod shall be: 5/8"for 3" pipe
3/4"for 4", 6", 8" pipe
7/8"for 10" pipe
1"for 12" pipe

Reason
1.Majority of water service are installed by plumbing contractors.
2.Due to lack of guidelines in Plumbing Code, large number of gasketed pressure pipe systems are installed in an unsafe manne
3.Uniform Plumbing Code includes a standard for thrust blocking.
4.Thrust block guidelines to be placed in the appendix of the Plumbing Code (example attached).

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver, B.C.
V7M 1H9

Amendment **Recommendation: Reject**

Reason
This item is covered by Proposal #25.

---

62 3.3.10. **P.C.A.C. Recommendation: Accept**

Proposed Change
Add to the Appendix the current sketches of locations of expansion joints (as attached).
Reason
The current BCPC provides information that has proven to be helpful to the industry and it should be continued.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

63 3.3.11. **P.C.A.C. Recommendation: Accept**

Proposed Change
Delete clause and add:

3.3.11 (1) Types M, DWV and hard drawn copper tube shall not be bent.

(2) Aluminum DWV shall not be bent.

Reason
This better clarifies bending copper restrictions.

If hard drawn copper is permitted to be bent then proper bending tools should be specified.

Aluminum DWV not acceptable if bent.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Accept**

Reason

---

64 3.3.4.(2)(b). **P.C.A.C. Recommendation: Amend**

Proposed Change
Amend to read:

(b) in a drainage system except to connect a fixture trap to a fixture drain or a fixture outlet pipe in an accessible location

Reason
Appendix drawing does not agree with current wording. Long standing common practice thoughout Canada depicted in sketch, wording should follow sketch or vice versa.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Amend

Amendment
Change as follows:
(b) In a *drainage system* except to connect a *ficture trap* to a *trap arm*, *fixture drain* or a *fixture outlet pipe* in an accessible location.

Reason
Add "trap arm".

---

65 3.3.9. **P.C.A.C. Recommendation: Amend**

Proposed Change
3.3.9. Roof Overflows

Every roof shall be designed for the maximum possible depth of water that will pond thereon as determined by the relative levels of roof decks and overflow weirs, scuppers or edges in combination with the deflected structural elements.

Reason
To minimize the possibility of roof collapse by excessive storm water ponding.

Submitted by: **Doug McDonald**
333 Quebec Street
Victoria, B.C.
V8V 1X4

Recommendation: Amend

Amendment
Change as follows:
3.3.9. Roof Overflows

Every roof *drainage system* shall include emergency roof overflow equal to 50% of the required drainage but shall be a minimum size of 46 square centimeters. (See Appendix).

Reason

---

66 3.3.9.(4). **P.C.A.C. Recommendation: Amend**

Proposed Change
Add to sentence:
, and provisions shall be made for expansion and contraction and shrinkage.
Reason
Wood frame construction requires these provisions.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Amend

Amendment
Add to Sentence 3.3.10.(2) as follows:
and provisions shall be made for expansion and contraction and building shrinkage.

Reason

---

67 3.4.5. (4) (a) (b). **P.C.A.C. Recommendation: Amend**

Proposed Change
Delete proposed clauses and add:

*(4) The supports for nominally horizontal piping shall be:
(a) hangers with metal rods of not less than:
(i) 6 mm diameter supporting up to 2" pipe size,
(ii) 8 mm diameter supporting up to 4" pipe size,
(iii) 13 mm diameter supporting over 4" pipe size,

(b) solid or perforated metal straps:
(i) not less than 0.6 mm nominal thick and, 12 mm wide for pipe, 2 inches or less in size and
(ii) not less than 0.8 mm thick, 18 mm wide for pipe 4 inches and less in size and more than 2 inches in size.

Reason
To provide requirements necessary to determine hanger strengths.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Amend

Amendment
Change as follows:
(iii) 13 mm diameter supporting over 4" pipe size, or

Reason
Editorial change.

---

68 3.5 **P.C.A.C. Recommendation: Amend**

Proposed Change
Piping used for internal leaders, which may be subject to sweating due to adverse temperature changes, shall be insulated.
Reason
To prevent internal property damage due to the effects of condensation.

Submitted by: **R.J. Mearns**

Recommendation: Amend

Amendment
Change as follows:
3.5.6. Condensation Control. Piping used for internal leaders, which may be subject to condensation due to adverse temperature changes, shall be insulated.

Reason
Editorial change.

---

69 3.5 **P.C.A.C. Recommendation: Amend**

Proposed Change
All piping shall be installed without undue strains or stresses and provisions shall be made for expansion contraction and structural settlement. No piping shall be built into or embedded in concrete or masonry walls or footing.
Reason
Code is not clear on acceptability of piping embedded in concrete or masonry walls of footing.

Wide variations on acceptance of this procedure by the enforcement officials.

Submitted by: **R.J. Mearns**
141 West 14th Street
Vancouver, B.C.
V7M 1H9

Recommendation: Amend

Amendment
Change as follows:
All piping shall be installed without undue strains or stresses and provisions shall be made for expansion, contraction and structural settlement. No piping shall be embedded in concrete, masonry or footings.

Reason
Editorial change.

---

70 3.5 **P.C.A.C. Recommendation: Reject**

Proposed Change
Underground water services shall not be located within 10 ft. of the sanitary sewer, which serves medical buildings, institutions, grandstands or other such buildings as the Plumbing Inspector deems necessary.

Reason
To preclude the possibility of cross connection.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver B.C.
V7M 1H9

Recommendation: Reject

Amendment

Reason
Unenforceable requirement.

---

71 3.5.1. Appendix **P.C.A.C. Recommendation: Reject**

Proposed Change
Add the following:

A.3.5.1. Recommended backfill is clear course sand conforming to ASTM D2487, "Standard Test Method for Classification of Soils for Engineering Purposes".

Reason
Code description of suitable backfill is too vague for enforcement purposes.

Submitted by: **Dave Sanders**
Box 34
Mackenzie, B.C.
VOJ 2CO

Recommendation: Reject

Amendment

Reason
Not cost effective.

---

72 3.5.4. **P.C.A.C. Recommendation: Amend**

Proposed Change
Delete proposed clause

Add: Piping in exterior building walls or unheated spaces shall be adequately protected against freezing by insulation or heat or both.

Reason
Necessary to achieve uniform requirements for frost protection in various climates.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Amend

Amendment
Change as follows:
Add: Piping in exterior building walls or unheated spaces shall be adequately protected against freezing by insulation and the application of heat or the application of heat only. (See Appendix).

Reason

---

73 3.5.6. **P.C.A.C. Recommendation: Accept**

Proposed Change
Add: 3.5.6. - Copper tubing passing through concrete shall be protected from corrosion and mechanical damage by being sleeved by an "acceptable" means.

Reason
Copper pipe in this location will corrode and fail.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Accept**

Reason

---

74 3.5.7. **P.C.A.C. Recommendation: Accept**

Proposed Change
Add: 3.5.7. Building sewers and water service piping not installed below the ground freezing level shall be installed in a manner acceptable to the authority having jurisdiction.

Reason
Piping in these locations must be adequately protected.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Accept**

Reason

---

75 3.6.1.(3). **P.C.A.C. Recommendation: Amend**

Proposed Change
Delete proposed clause and add:

3.6.1. (3) Where a fabricated system in assembled off the building site in a manner that it cannot be inspected and tested to the satisfaction of the building site jurisdiction.

Reason
Present clause not clear regarding who should be in control of off-site inspections, and ultimately responsible for on-site construction.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Amend**

Change as follows:
Where a system is assembled off the building site, it shall be inspected and tested to the satisfaction of the *authority having jurisdiction.*

Reason

---

76 **3.6.3.** **P.C.A.C. Recommendation: Amend**

Proposed Change
Delete proposed clause and add:

3.6.3. Every venting system shall be capable of withstanding without leakage a water test, air test, and a final test shall be carried out when requested.

Reason
Final test should not be required for every project.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Amend**

Change as follows:
3.6.3. Every *venting system* shall be capable of withstanding without leakage a water test, air test, or smoke test.

Reason
A final test is not necessary; and to make provision for a smoke test.

---

77 **3.7** **P.C.A.C. Recommendation: Reject**

Proposed Change
Subsection 3.7.2. (1) as is
(A) as is
(B) as is
(2) as is

ADD: (A) All plastic water pipe systems shall be tested for 2 hrs. without a pressure drop of a test of at least 1400 K.P.A.

Reason
Concerns with regards to the number of failures in plastic water pipe systems in single and two family units.

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Reject**

Reason
Requirements are covered in #80.

---

78 **3.7.1.(1).** **P.C.A.C. Recommendation: Accept**

Proposed Change
Delete clause and add:

3.7.1. (1) After a section of a potable water system has been completed, and before it is placed in operation, a water test shall be conducted, except that where permitted by the pipe manufacturer and the authority having jurisdiction, an air test may be used.

Reason
An air test on many types of plastic pipe is not conclusive and in some cases dangerous. (i.e. P.V.C. schedule 40 pipe)

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Accept**

Reason

---

79 **3.7.1.(3).** **P.C.A.C.**
Recommendation: Amend

Proposed Change
Delete clause and add:

3.7.1. (3) Where a fabricated system in assembled off the building site in a manner that it cannot be inspected and tested to the satisfaction of the building site jurisdiction.

Reason
Present clause not clear regarding who should be in control of off-site inspections, and ultimately responsible for on-site construction.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Amend

Amendment
Change as follows:
Where a system is assembled off the building site, it shall be inspected, tested and accepted to the satisfaction of the *authority having jurisdiction.*

Reason
Clarification.

---

80 **3.7.2.** **P.C.A.C.**
Recommendation: Amend

Proposed Change
Delete proposed sub-section and add:

3.7.2. (1) Except as required by Sentence (2), every potable water system shall be capable of:
(a) withstanding without leakage a water pressure that is at least equal to the maximum pressure to which it may be subject in service, or
(b) withstanding for at least 2 hr. without a drop in pressure an air pressure that is at least 700 kPa.
(2) When the system serves a building of other than one or two family units, the system shall withstand for at least 2 hrs. without a drop in pressure a water test of at least 1400 kPa.
(3) Where plastic pipe is used in a water system "an air test" shall not be accepted.

Reason
Air tests on P.V.C. and other plastic pipe could be dangerous.

Submitted by: **C. Code, Chairman**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Amend

Amendment
Amend sentence (1) to read:
Except as required by sentence (2) and (4), every ...

Add the following sentence:
(4) If the manufacturer recommends a more stringent test, manufacturer's recommendations must be followed.

Reason
Correct application of products is dependent on manufacturer's instructions.

---

81 4.2. **P.C.A.C. Recommendation: Amend**

Proposed Change
Add to 4.2

I propose that all wet vent stacks designed to service auto. washers, must connect into the building drain downstream of all other branch connections.

Reason
The discharge lines from auto. washers have created many problems by filling the building drain or branch drains with suds and causing water to back-up into adjacent branch drains, filling bath tubs and toilets with sudsy and dirty water.

Submitted by: **Ken Harper**
453 W. 12th Avenue
Vancouver, B.C.
V5Y 1V4

Recommendation: Amend

Amendment
Add the following clause 4.2.1.(1)(f):

(f) The connection of a *soil-or-waste pipe* from suds producing *fixtures* such as clothes washers and bathtubs to a *soil-or-waste stack, multi-storey wet-vent* and *nominally horizontal offset* shall not be made within the suds pressure zones of the *soil-or-waste stack- multi-storey wet-vent* or *nominally horizontal offset.* (see Appendix A).

Reason
To provide for more comprehensive protection from possible failure of a drainage system due to sudsing.

---

82 4.2.1. **P.C.A.C. Recommendation: Reject**

Proposed Change
Add: 4.2.1. (5) Except for one and two family dwellings, all roofs and paved areas shall be drained to a storm drainage system.

Reason
To provide for necessary drainage system.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Reject

Amendment

Reason
Proposal #84 addresses the same requirement.

---

83 4.2.1. **P.C.A.C. Recommendation: Accept**

Proposed Change
4.2.1. (2) Floor drains and hub drains located in food display areas shall be connected to a Special Waste System, and be protected from backflow from sanitary drains and sewers. (See (Appendix)

(1) Food waste disposals, water closets and other sanitary fixtures shall not discharge into Special Waste System.

Reason
To provide required system for food display areas.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Accept

Amendment

Reason

---

84 4.2.1. **P.C.A.C. Recommendation: Accept**

Proposed Change

4.2.1. Connections to Storm Drainage Systems.

4.2.1.(1) All roof and paved areas shall drain to a *storm drainage system.*

Reason

All roof and paved areas including single family dwellings should drain separately to a storm sewer. The practice of draining roof and paved areas of single family dwellings into *subsoil drainage* systems may cause foundation damage and introduce excessive moisture into building interiors.

Submitted by: **Doug McDonald**
333 Quebec Street
Victoria, B.C.
V8V 1X4

Amendment **Recommendation: Accept**

Reason

---

85 4.2.1.(5) **P.C.A.C. Recommendation: Reject**

Proposed Change

All roof and paved areas shall drain into a storm drainage system when available and as otherwise permitted by the authority having jurisdiction. All paved, impervious, or hard-packed gravel areas, at or near ground level, where catch-basins and (or) crossing grates are required, said catch-basins and (or) crossing grates shall be located in such a manner as to drain adequately each portion of said area or areas, and catch-basins shall be placed so that the distance in any direction between high points and catch-basin is no more than 125 feet. In no case shall a catch-basin be located as to drain an area in excess of 1,161 m2 (12,500 sq. ft.) or 17,500 L.

Reason

1. A minimal design criteria is required to provide reference where common sense doesn't prevail in design provisions.

2. To help eliminate shortcut drainage disposal methods from which a multitude of problems evolve for subsurface and surface drainage concerns.

Submitted by: **Gordon R. Isaac**
Box 40, 450 - 2nd Ave
Salmon Arm, B.C.
V1E 4N2

Amendment **Recommendation: Reject**

Reason

Too design oriented.

---

86 4.2.1.(5) **P.C.A.C. Recommendation: Reject**

Proposed Change

All roof and paved areas shall drain into a *storm drainage system* when available and as otherwise permitted by the authority having jurisdiction. All paved, impervious, or hard-packed gravel areas, at or near ground level, where catch basins and/or crossing grates are required, said catch basins and/or crossing grates shall be located in such a manner as to drain adequately each portion of said area or areas,and catch basins shall be placed so that the distance in any direction between high points and catch basins is no more than 125 feet. In no case shall a catch basin be located as to drain an area in excess of 1,161 sq.m. (12,500 sq. ft.) or 17,500 L.

Reason

1) A minimal design criteria is required to provide reference where common sense doesn't prevail in design provisions.

2) To help eliminate shortcut drainage disposal methods from which a multitude of problems evolve for subsurface and surface drainage concerns.

Submitted by: **Gordon Isaac**
Box 40, 450-2 Ave. NE
Salmon Arm B.C.
V1E 4N2

Amendment **Recommendation: Reject**

Reason

Same proposal as #85.

---

87 4.3

P.C.A.C.
Recommendation: Accept

Proposed Change

1. At least 530mm clearance shall be provided in front of the tub or shower stall to an opposite wall face or 450mm in front to another fixture, over at least a 600mm length of the bathtub or shower.

2. The centreline of the water closet shall be at least 380mm away from an adjacent side wall and from a vanity. At least 450mm clearance shall be provided in front of the water closet to the opposite wall or another fixture.

3. The centreline of a lavatory shall be at least 360mm from an adjacent side wall. At least 530mm clearance shall be provided in front of the lavatory to an opposite wall or 450mm clearance in front to another fixture.

Reason

- Residential standards recognizes the importance of having a minimum clearance to fixtures.

- Acceptable judgement sizes should not be permitted as they are subject to wide variance from each enforcement official.

- Appeal 692 dated May 2, 1983, supported these clearances.

Submitted by: **R.J. Mearns**

Recommendation: Accept

Amendment

Reason

---

88 4.3.

P.C.A.C.
Recommendation: Reject

Proposed Change

Add: 4.3.5. Clearances for plumbing fixtures in residential buildings shall be:

(a) At least 1 ft. 9 in. clearance shall be provided in front of the tub or shower stall to an opposite wall face or 1 ft. 6 in. in front to another fixture, over at least a 2 ft. length of the bathtub or shower.
(b) The centreline of the water closet shall be at least 1 ft. 3 in. away from an adjacent side wall and from a vanity. At least 1 ft. 6 in. clearance shall be provided in front of the water closet to the opposite wall or another fixture.
(c) The centreline of a lavatory shall be at least 1 ft. 3 in. from an adjacent side wall. At least 1 ft. 9 in. clearance shall be provided in front of the lavatory to an opposite wall or 1 ft. 6 in. clearance in front to another fixture.

Reason

To provide clarification of fixture clearances for use and to be consistant with Appeal #692 recognizing C.M.H.C. requirements

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Reject

Amendment

Reason

Accept change #87 which is similar.

---

89 4.3.1. **P.C.A.C. Recommendation: Amend**

Proposed Change
Add to proposed:

4.3.1. (1) Urinals shall not be installed adjacent to walls that are pervious to water.
(2) The floor and walls adjacent to a urinal shall be protected by glazed tile or other acceptable material:
(a) to within 300 mm of any part of the urinal extended to the floor,
(b) from the floor to 300 mm above the urinal, and
(c) to 300 mm in front of any part of the urinal.
(3) The authority having jurisdiction may permit the installation of on-site constructed through urinals.
(4) Where automatic flushing devices are to be used for urinals, a floor drain shall be installed.

Reason
To provide clear details of acceptable protection distances, overflow protection and on site construction.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Amend

Amendment
Change as follows:
Change Sentence 4.3.1.(1) to be the same as article 3.6.4.6. Surface Protection near Urinals in the 1990 N.B.C.

Reason
To be consistent with the Building Code.

---

90 4.3.5. **P.C.A.C. Recommendation: Amend**

Proposed Change
4.3.5. Service Water Heaters.
A floor drain shall be provided adjacent to a *service water heater.*

Reason
To provide a safeguard from water damage due to ruptured hot water tanks. Single family dwellings without a basement do not presently require a floor drain.

Submitted by: **Doug McDonald**
333 Quebec Street
Victoria, B.C.
V8V 1X4

Recommendation: Amend

Amendment
Change as follows:
6.1.7.(10) Every hot water storage tank located in a building shall be provided with a corrosion resistant watertight pan.

(11) A corrosion resistant watertight pan installed under hot water storage tanks shall be larger than the diameter of the tank and the side walls shall not be less than 25 mm high, and

(a) a pipe two nominal sizes larger than the relief valve discharge line shall be securely attached to the bottom of the pan, and

(b) shall terminate directly above a floor drain, located within 1 metre of the hot water storage tank, or other acceptable location, and

(c) the hot water storage tank relief valve discharge shall terminate directly above the watertight pan drain.

Reason
To consolidate hot water tank pan requirements with the requirement for a floor drain.

---

91 4.4 **P.C.A.C. Recommendation: Reject**

Proposed Change
Due to the wide range of detrimental material which may enter the sanitary or storm drainage system. Reference of suitable standards and or departments which can provide assistance in the prevention of same should be referenced in the appendix of the Plumbing Code.

Reason
Examples of the proposed are as follows:

- Greater Vancouver Sewerage and Drainage District Act
- Waste Management Act
- Special Waste Regulation Guide
- G.V.R.D. Pollution Control Branch
- Department of Fisheries and the Environment

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Reject**

Reason
Responsibility of individual municipality.

---

92 4.5.3 **P.C.A.C. Recommendation: Amend**

Proposed Change
Where a subsoil drainage pipe is connected to a sanitary drainage system, the connection shall be made in such a manner that sewage cannot back-up in the subsoil drainage pipe (see appendix).

Article 4.5.3. - Page 99 Backwater valve to be placed on the (A) branch connections to trapped floor drain, (B) outlet of trapped sump.

Reason
Existing requirement would permit sewage to back up in to the subsoil drainage piping and the trapped sump.

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Amend**

Change as follows:
Where a *subsoil drainage pipe* is connected to a *combined building drain* or *combined building sewer*, the connection shall be made in such a manner that *sewage* cannot back-up into the *subsoil drainage pipe*. (See Appendix).

Reason
Wording amended to harmonize with code definitions.

---

93 4.6 **P.C.A.C. Recommendation: Accept**

Proposed Change
Subsection 4.3
Where drains are provided in elevator pits

(A) They shall not be connected directly to any drain or sewer.

(B) There shall be a sump well provided outside the elevator pit and the drains connected into the sump well.

(C) The drains connected from the sump well into the drain or sewer shall have a back water valve.

Reason
- To indicate acceptable method of drainage from a elevator pit in the Plumbing Code.

- To avoid conflict between Safety Code for Elevators (2.7.1.5.) and B.C.P.C.

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Accept**

Reason

---

94 4.6

P.C.A.C. Recommendation: Reject

Proposed Change
That (Appendix A) provide a diagram to show how to meet the intent of Subsection 4.6.4.(5).
Reason
Unable to locate method in Appendix A.

Submitted by: R.J. Mearns

Recommendation: Reject

Amendment

Reason
The drawing is shown in the appendix. Refer to reference A.4.6.4.(5)

---

95 4.6.4.(3)

P.C.A.C. Recommendation: Accept

Proposed Change
Where the fixture is a floor drain, a vertical backwater valve shall be installed on the u, :tream side of the trap.
Reason
- Existing requirement would require a 24 hour watch to prevent flooding of the area being served by the floor drain.

- Selection of reliable vertical check valves are now readily available.

Submitted by: R.J. Mearns
141 West 114th Street
North Vancouver B.C.
V7M 1H9

Recommendation: Accept

Amendment

Reason

---

96 4.7

P.C.A.C. Recommendation: Reject

Proposed Change
Manholes Catch basins & Sumps
4.7.3.(1) Okay
(2) Okay
(a) Okay
(b) A riged ladder of a corrosive-resistant material to permit access to the bottom of the manhole, *sump or catch-basin* where the depth exceeds 1.5m, and
(c) Okay
(3) Okay
(a) Sump and catch basins shall be at least 1m in diameter where the depth below grade exceeds 1.5m.
(4) Okay
Reason
- To provide a sizing requirement for sumps and catch basins.
- To ensure sumps and catch basins can be accessed safely for servicing.
- Wide variations on sizing that is acceptable by each enforcement official.

Submitted by: R.J. Mearns

Recommendation: Reject

Amendment

Reason
The Code presently deals sufficiently with this item.

---

97 4.7.3. **P.C.A.C. Recommendation: Amend**

Proposed Change
Add: 4.7.3. (5) A manhole, sump or catch basin shall be:

(a) Minimum 900 mm to a maximum depth of 1.5 m.
(b) Greater depths shall have chamber increased by 150 mm for each .3 m of depth.

Reason
To provide safe access for persons working in deep manholes.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Amend

Amendment
Change as follows:

Change Code reference to:

4.6.3.(8) A sump or catch basin shall have

(a) a minimum 750 mm horizontal dimension with a maximum depth of 1.5 m, and

(b) the horizontal deministion increasedd by 150 mm for each additional 3 m of depth.

Reason
Sump and catch basins are referenced under Article 4.6.3. Sumps or Tanks

---

98 4.7.3. (1). **P.C.A.C. Recommendation: Amend**

Proposed Change
Delete and add:

Title - Manholes & Catch Basins

4.7.3. (1) A manhole, sump or catch basin including the cover shall be designed to support all loads imposed on it.

Reason
Sumps and catch basin are subject to the same loads as manholes.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Amend

Amendment
Change as follows:

Change code reference to:

4.6.3.(9) A sump or catch basin including the cover shall be designed to support all loads imposed on it.

Reason
Sumps and catch basins are referenced under Article 4.6.3. Sumps or Tanks.

---

99 4.8.1. **P.C.A.C. Recommendation: Accept**

Proposed Change
DELETE and SUBSTITUTE:

4.8.1. Except as provided in Articles 4.10.8 and 4.10.9. every pipe in a drainage system shall have a downward slope of at least 1 in 50 in the direction of flow.

Reason
The current wording does not regulate the slope of 4" branches.
"Drainage system" is defined - drainage pipe is not.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Accept

Amendment

Reason

---

100 4.9.A. **P.C.A.C. Recommendation: Accept**

Proposed Change
Table 4.9.A.
Change: Lavatory
(c) Domestic type - 1 fixture unit with 1 1/4" or 1 1/2" trap.

Reason
Fixture unit loading should be based on the fixture outlet pipe for smaller sized fixtures.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Accept

Amendment

Reason

---

101 4.9.A. **P.C.A.C. Recommendation: Accept**

Proposed Change
Add to bottom of Table 4.9.A.:

* No load when discharged to a laundry tray.
** No drainage load for emergency floor drains.
*** Bathroom group see 1.3.2.

(1) The trap inlet shall be fitted with a vertical standpipe of not less than 600 mm in height measured from the trap wier.
(2) The trap shall be sized in accordance with Sentence 4.10.3. (1).

Add asterisks in appropriate locations in the table.

Reason
To provide clarification of fixture loading.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Accept

Amendment

Reason

---

102 **4.9.2.** **P.C.A.C. Recommendation: Accept**

Proposed Change
Add: 4.9.2. (5) The minimum size of every building sewer and underground portion of every building drain shall be 4 inches.

Reason
To prevent hardship when adding fixtures (W.C.) to an existing system.
i.e. - Maximum 2 W.C. permitted on 3 inch pipe.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Accept**

Reason

---

103 **4.9.2.(4)** **P.C.A.C. Recommendation: Reject**

Proposed Change
The minimum size of every *building sewer* and the underground portion of every *building drain* shall be 4 inches.

Reason
Complaints from several municipalities regarding problems at point of connection of building sewer and public sewer and blockage problems with 3" building sewers.

Submitted by: **Doug McDonald**
333 Quebec Street
Victoria, B.C.
V8V 1X4

Amendment **Recommendation: Reject**

Reason
Same proposal covered by CCP #102

---

104 **4.9.3.** **P.C.A.C. Recommendation: Accept**

Proposed Change
4.9.3.

(3) The size of every fixture outlet pipe not listed in Table 4.9.A. shall be acceptable.
(4) The trap arm and trap shall not be more than one size larger than the fixture outlet pipe.

Reason
To provide clarification of trap arm for fixtures.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Amendment **Recommendation: Accept**

Reason

---

105 4.10. **P.C.A.C. Recommendation: Accept**

Proposed Change

Add: 4.10.12 (1) Notwithstanding 4.10.4.1., 4.10.4.2. and 4.10.9., storm sewers may be designed in accordance with good engineering practice.

(2) The design velocity in storm sewers shall be not less than 0.60 m/s.

Reason

To clarify design criteria for storm sewers.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Accept

Amendment

Reason

---

106 4.10. **P.C.A.C. Recommendation: Amend**

Proposed Change

Add: 4.10.11. The hydraulic load that is drained to a vertical internal leader shall conform to Table 4.10.G. except that the size of one roof drain and one leader shall be at least three inches (3") when such roof drain and leader services a roof area greater than 185 m2.

Reason

To provide proven adequate drainage for larger roofs.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Amend

Amendment

Change as follows:

4.10.11. The hydraulic load that is drained to a vertical internal *leader* shall conform to Table 4.10.G. except that the *size* of one roof drain and one *leader* shall be at least three inches (3 inches) when such roof drain and *leader* services a roof area greater than 185 m2.

Reason

---

107 4.10.3. **P.C.A.C. Recommendation: Accept**

Proposed Change

DELETE AND SUBSTITUTE:

(1) Except as provided in Sentence (2), the hydraulic load from a fixture or equipment that produces a continuous flow, such as a pump or an air conditioning unit, is 26.4 fixture units for each litre per second of flow.

(2) Delete "or semi-continuous"

(3) The hydraulic load from a fixture or equipment that produces an intermittent flow shall be sized to Table 4.10.H., providing a trap other than a trap serving a floor drain shall be provided with a 600 mm standpipe.

Refer to attached Table 4.10.H.

Reason

The terminology 'semi-continuous' is improper grammar and inappropriate. There is a need to distinguish 'continuous' flow from 'intermittent' flow to establish reasonable sizes. For example: currently, a flow of 0.5 l/s would require sizing to 13.2 fixture units; the proposed regulation would require only a 1-1/2" trap.

Submitted by: **John Eladon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Accept

Amendment

Reason

---

108 4.10.9

P.C.A.C. Recommendation: Amend

Proposed Change
Add 4.10.9.(1)
The hydraulic load that is drained to 2" above grade horizontal loader shall be:
550 litres at 2%
600 litres at 3%
750 litres at 4%

Reason
- To provide for pipe sizing of less that 3" for drainage of small areas.
- Vancouver have had a provision for 2" horizontal storm piping since 1962.
- Plumbing Code requirements of design velocity of .60 M/S is maintained.

Submitted by: **R.J. Mearns**

Recommendation: Amend

Amendment
Change as follows:
Article 4.10.9. Hydraulic Loads on Storm or Combined Building Drains, Sewer or Horizontal leaders. The hydralic load that is drained to a *storm building sewer*, a *combined building sewer*, or a horizontal *leader* shall conform to Table 4.10.E.
Amend Table 4.10.E. by adding a 2 inch size as follows:
TABLE 4.10.E. Forming Part of Article 4.10.9.

Maximum Permitted Hydraulic Load Drained to a Storm Building Drain or Sewer or a Combined Building Sewer or Horizontal Leader

Size of Drain or Sewer, inches	Maximum Hydraulic Load, L						
	Slope						
	1 in 400	1 in 200	1 in 33	1 in 100	1 in 68	1 in 50	1 in 25
2	-	-	-	-	-	550	750

Reason

---

109 5.1.1.(1)(c).

P.C.A.C. Recommendation: Reject

Proposed Change
Delete (ii)
Reason
A single storey wet vent cannot be extended as a stack vent.

Submitted by: **John Eledon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Reject

Amendment

Reason
Adopt venting provisions in 1985 B.C.P.C.

---

110 5.1.1.(3)

P.C.A.C. Recommendation: Reject

Proposed Change
Backwater valves to be placed on the branch serving the *storm drainage system.*
Reason
To indicate a method to prevent sewage backing up into the storm drainage system or subsoil drainage system.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver, B.C.
V7M 1H9

Recommendation: Reject

Amendment

Reason
Covered under Proposal #92

---

111 5.1.1.(4)(c). **P.C.A.C. Recommendation: Accept**

Proposed Change
Revise to read:

(c) where it forms part of an indirectly connected drainage system.

Reason
"Indirectly connected" is the defined term and should be used.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

112 5.1.1.(4)(c) **P.C.A.C. Recommendation: Accept**

Proposed Change
Revise to read:

(c) where it forms part of an *indirectly connected drainage system*

Reason
"Indirectly connected" is the defined term and should be used.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

113 5.2 **P.C.A.C. Recommendation: Reject**

Proposed Change

CIRCUIT VENTING - PROPOSED NEW ARTICLE

(1) A horizontal branch may serve as a circuit vented system providing:
(a) all fixtures served are located on the same storey,
(b) The fixtures served are connected directly and separately to the branch,
(c) no soil or waste stack is connected to the branch upsteam of a circuit vented fixture,
(d) fixtures with fixture outlet pipes of a size less than 2 inches are separately vented or separately circuit vented,
(e) the miniumum size of the branch is not less than 2 inches, and
(f) the circuit vented branch is the same size from the most downstream connected fixture to the connection of the circuit vent.

ADD: DEFINITION OF "CIRCUIT VENT"
"Circuit Vent" means a vent pipe that serves a number of fixtures connected to a horizontal branch and connects to the fixture drain of the most upstream fixture. (See Appendix)
(ADD B.C.P.C. Appendix)

Reason
Circuit vented branches are not addressed by the proposed amendments to the single storey wet vent article.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Adopt venting provisions in 1985 B.C.P.C.

---

114 **5.2.1.(1).** **P.C.A.C.**
Recommendation: Reject

Proposed Change
PROPOSED AMENDMENT - ARTICLE 5.2.1.(1)

(1) A horizontal branch may serve as a single storey wet vent provided that:

(a) it is extended as a continuous vent,
(b) all the fixtures are in the same storey,
(c) no soil or waste stack is connected to it upstream of a wet vented fixture,
(d) except as provided in (2), trap arms are connected separately and directly to the branch,
(e) water closets are installed downstream of all other fixtures connected to the branch,
(f) a maximum of two water closets, symmetrically connected, may be wet vented, and
(g) the minimum size of the wet venting portion of pipe is the same size throughout.

Reason
The combining of single storey wet venting with circuit venting does not work well. Circuit venting is used mainly on commercial and single storey wet venting on residential. The industry is better served by maintaining the B.C.P.C. regulations in this respect.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Adopt venting provisions in 1985 B.C.P.C.

---

115 **5.2.2.** **P.C.A.C.**
Recommendation: Reject

Proposed Change
RELIEF VENTS - PROPOSED AMENDMENT

(1) A relief vent shall be connected to a wet vented or circuit vented branch
(a) downstream of the most downstream fixture connected when the branch is connected to a soil or waste pipe that receives a hydraulic load of more than 6 fixture units upstream of that connection and the branch serves more than four fixtures,
(b) so that cumulative change in direction in the branch between vent pipes does not exceed 45 degrees, and
(c) so that not more than 8 fixtures are connected between vent pipes serving the branch. (See Appendix A)
(2) A soil or waste pipe that is extended as an individual vent or a dual vent may serve as a relief vent providing the soil or waste pipe is sized as a wet vent. (See Appendix A)
(3) A relief vent may serve 2 or more wet vented or circuit vented branches providing the branches serve not more than 8 fixtures. (See Appendix A)

Reason
The text is changed to reflect circuit venting and single storey wet venting. 5.2.2.(1) did not correlate with 5.2.2.(1) (c).

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Adopt venting provisions in 1985 B.C.P.C.

---

116 5.3.1.(f). **P.C.A.C. Recommendation: Reject**

Proposed Change
Revise to read:

(f) no reduction in size shall be made to the wet vented portion of a multi-storey wet vent.

Reason
The terms "soil and waste stack" and "base" seem to indicate the base of the soil and waste stack.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Adopt venting provisions in 1985 B.C.P.C.

---

117 5.4.1.(2). **P.C.A.C. Recommendation: Reject**

Proposed Change
DELETE AND SUBTITUTE:

5.4.1.(2) A stack vent may serve as the vent pipe for the directly connect fixtures in the uppermost storey served by the soil or waste stack, providing

(a) the hydraulic load on the uppermost storey is not more than 2 water closets and not more than an additional 6 fixture units,
(b) the water closets are connected downstream of the other fixtures on the storey,
(c) the soil or waste stack is not less than 3 ins. size; and
(d) the stack vent is not less than 3 ins. size.

Reason
The current wording has created some misunderstandings and needed clarifying. The proposed regulations will provide a less costly installation and at the same time regulate minimum sizes. Sizing was overlooked in the current Code.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Adopt venting provisions in 1985 B.C.P.C.

---

118 5.4.2.(1) & (2). **P.C.A.C. Recommendation: Reject**

Proposed Change
REVISE TO READ:

(1) A vent stack shall be installed on a soil or waste stack that has fixtures draining to it from more than 4 storeys.

(2) The vent stack shall be connected to the vertical portion of the soil or waste stack immediately below the lowest soil or waste pipe connection.

Reason
(1) and (2) did not correlate too well. If the vent stack is "to protect the base", why can it be installed 10 feet away below the lowest connection?

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Adopt venting provisions in 1985 B.C.P.C.

---

119 5.4.2.(4). **P.C.A.C.**

Proposed Change **Recommendation: Accept**
ADD new Clause

(4) Where a horizontal offset forms part of a soil or waste stack, sentence (1) shall apply to each vertical section as individual stacks and the horizontal offset shall be sized to Table 4.10.C.
(See Appendix A)

Reason
The reasons for requiring a vent stack are valid for each portion of a stack based on the pressures and problems relating to the discharge of fixtures from more than 4 storeys.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**
Reason

---

120 5.4.2.3.(a). **P.C.A.C.**

Proposed Change **Recommendation: Accept**
(a) the total hydraulic load of the connected fixtures does not exceed 2 fixtures of not more than 1-1/2 fixtures units each,

Reason
The downstream flow of 8 fixture units will conflict with the movement of air being vented. This is especially true if water closets are installed. No increase in pipe size may be necessary. Accordingly, hydraulic flow considerations have been ignored.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**
Reason

---

121 5.6.2.(1). **P.C.A.C.**

Proposed Change **Recommendation: Amend**
DELETE the words "where it is practical to do so".

Reason
Wording will create controversy in the industry. What is "practical"? The authority having jurisdiction has the jurisdiction to address equivalents.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Amend**
Change as follows:

5.6.2.(1) Every *vent pipe* shall be extended to open air by a *venting system* that terminates through a roof.

Reason
Editorial change.

---

122 5.6.2.(2). **P.C.A.C. Recommendation: Reject**

Proposed Change
Except for wet vents, where a vent pipe is connected to a nominally horizontal soil-or-waste pipe, the vent pipe shall be taken off above the centre line of the soil-or-waste pipe and shall rise vertically to a point not less than 6 inches above the flood-level of the fixture it is venting.

Reason

Submitted by: **Don Laird**
4381 Blackcomb Way
Whistler, B.C.
V0N 1B0

Recommendation: Reject

Amendment

Reason
Proposal #128 accepted in lieu of this propsal.

---

123 5.6.2.(2) **P.C.A.C. Recommendation: Reject**

Proposed Change
VENT PIPE CONNECTIONS
5.6.2.(2) Except for a *wet vent* or island fixture vent, where a vent pipe is connected to a horizontal *soil or waste pipe*, the *vent pipe* shall be taken off above the centre line of the *soil or waste pipe* and rise vertically to a point not less than 150 mm above the *flood level rim* of the *fixture* it is venting.

Reason
Dry flat vents should not be permitted.

Submitted by: **Don Laird**
4381 Blackcomb Way
Whistler B.C.
V0N 1B0

Recommendation: Reject

Amendment

Reason
Proposal #128 accepted in lieu of this proposal.

---

124 5.6.3.(1)(b). **P.C.A.C. Recommendation: Amend**

Proposed Change
(b) the total fall on the trap arm is not greater than its size.

Reason
The use of different terms for the same piece of piping is confusing.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Amend

Amendment
Change as follows:

(b) the total fall on the *trap arm* is not greater than its size, and...

Reason
Editorial change.

---

125 5.6.3.(1)(c). **P.C.A.C. Recommendation: Reject**

Proposed Change

(c) the trap arm does not have a cumulative change of direction of more than 90 degrees.

Change Appendix "A"

Reason

A cleaning rod entering a trap has to navigate 270 degrees before it reaches the trap arm. If 135 degrees is added, you have the equivalent of "a full circle plus 45 degrees". (405 degrees)

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason

Too restrictive.

---

126 5.6.3.(3). **P.C.A.C. Recommendation: Accept**

Proposed Change

(3) A vent pipe that protects a water closet or a fixture that depends on siphonic action for its proper functioning shall be so located that the distance between the connection of the trap arm to the fixture and the vent pipe shall not exceed

(a) as is
(b) as is

Reason

"Trap arm" is used elsewhere in the Article, not "fixture drain". Grammatical changes necessary for clarity.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

127 5.6.4.(1). **P.C.A.C. Recommendation: Reject**

Proposed Change

(1) An individual vent, dual vent, continuous vent or relief vent shall extend vertically above the flood level rim of every fixture that it serves before being connected to another vent pipe.

Reason

Reinforces the need for vents to be extended vertically before flat venting can occur.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason

Proposal #128 accepted in lieu of this proposal.

---

128 5.6.4.(1). **P.C.A.C. Recommendation: Amend**

Proposed Change
Except for a wet vent and an island fixture vent, a vent pipe shall extend vertically not less than 150 mm above the flood level rim of every fixture that it serves; before running horizontal or being connected to another vent.

Reason

Submitted by: **Don Laird**
4381 Blackcomb Way
Whistler, B.C.
V0N 1B0

Recommendation: Amend

Amendment
Change as follows:

Except for a *wet vent*, a *vent pipe* shall extend vertically not less than 150mm above the *flood level rim* of every *fixture* that it serves; before running horzontal or being connected to another vent.

Reason
To delete the reference to island fixture vents.

---

129 5.6.4.(1) **P.C.A.C. Recommendation: Reject**

Proposed Change
Alter to read:

An individual vent, continuous vent or relief vent shall extend "vertically" above the flood level rim of every fixture that it serves before being connected to another vent.

Reason
All such vents should rise vertically as indicated to eliminate possible flat dry vents. These vents will block and not maintained properly.

Submitted by: **C. Code (Chairman)**
6911 No. 3 Road
Richmond, B.C.
V6Y 2C1

Recommendation: Reject

Amendment

Reason
Proposal #128 accepted in lieu of this proposal.

---

130 5.6.4.(1) **P.C.A.C. Recommendation: Reject**

Proposed Change
Add the following:
Except for *wet vents* all *vent pipes* connected to a horizontal *soil or waste pipe*, the *vent pipe* shall be taken off above the centre line of the *soil or waste pipe* and shall rise vertically to a point not less than 150mm above the *flood level rim* of the *fixture* it is venting.

Reason
Flat dry vents should not be permitted under the overflow of a fixture.

Submitted by: **Alex McNeil**
P.O. Box 86218
District of North Van B.C.
V7L 4K1

Recommendation: Reject

Amendment

Reason
Proposal #128 accepted in lieu of this proposal.

---

131 **5.6.4.(1)**

P.C.A.C.
Recommendation: Reject

Proposed Change
CONNECTIONS OF VENTS ABOVE FIXTURES SERVED
5.6.4.(1) Except for a *wet vent* or an island fixture vent, a *vent pipe* shall extend vertically not less than 150mm above the *flood level rim* of every *fixture* that it serves before running horizontal or being connected to another *vent pipe*.
Reason
Dry flat vents should not be permitted.

Submitted by: **Don Laird**
4381 Blackcomb Way
Whistler B.C.
V0N 1B0

Amendment

Reason
Proposal #128 accepted in lieu of this proposal.

Recommendation: Reject

---

132 **5.6.4.(4).**

P.C.A.C.
Recommendation: Accept

Proposed Change
DELETE sentence
Reason
Vent flashings should be part of the Building Code as they deal with building, not plumbing.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment

Reason

Recommendation: Accept

---

133 **5.7.3.(1) & (2)**

P.C.A.C.
Recommendation: Reject

Proposed Change
DELETE "Except as provided in Article 5.7.1." in both sentences.
Reason
Article 5.7.1. relates to 5.7.A. and the sizes of traps. Relief vents do not serve traps, they serve systems.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment

Reason
Adopt venting provisions in 1985 B.C.P.C.

Recommendation: Reject

---

134 5.8.A. **P.C.A.C. Recommendation: Reject**

Proposed Change
Table 5.8.A.
CHANGE to read:

Maximum Permitted Hydraulic Load Connected to a Branch Serving as a Single Storey Wet Vent

Size of Wet Vent, in.	Hydraulic Load in Fixture Units	
	Not Serving a Water Closet	Serving a Water Closet
1-1/2	2	-
2	4	3
2-1/2	6	4
3	12	6
4	36	14

Reason
Our current system differentiates between serving and not serving a water closet. The Table for Multi-storey wet venting also differentiates. Hydraulic load increases should be considered when complete test results have been considered.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Adopt venting provisions in 1985 B.C.P.C.

---

135 5.8.B. **P.C.A.C. Recommendation: Reject**

Proposed Change
Table 5.8.B.
AMEND as follows:

Delete Column 4 entirely

Amend Column 3 heading to read "Serving Water Closets and Fixtures Other than Water Closets"

Reason
Column 4 is confusing and unnecessary.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Adopt venting provisions in 1985 B.C.P.C.

---

136 5.3.1.(2). P.C.A.C.
Recommendation: Reject

Proposed Change
Sketches to be revised as shown on attached plan.
Reason
All fixtures should be counted on a multi-storey wet vent except for water closets which are addressed separately. The Table distinguishes between a stack serving and not serving the W.C.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Adopt venting provisions in 1985 B.C.P.C.

---

137 5.8.3.(3). P.C.A.C.
Recommendation: Reject

Proposed Change
CHANGE to read:

(3) The length of a branch vent for the purpose of Table 5.8.C. shall be the developed length of vent piping from its most distant connection to the soil or waste pipe it serves to a vent stack, stack vent, header or open air.

Reason
Grammatical changes for clarity.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Adopt venting provisions in 1985 B.C.P.C.

---

138 5.8.3.(4). P.C.A.C.
Recommendation: Reject

Proposed Change
CHANGE to read:

(4) The length of a header for the purpose of Table 5.8.C. shall be the developed length of vent piping from its most distant connection to a soil or waste pipe it serves to the open air.

Reason
Grammatical changes for clarity.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Adopt venting provisions in 1985 B.C.P.C.

---

139 **5.8.4.** **P.C.A.C.**
Recommendation: Amend

Proposed Change
DELETE "Headers" from the title.

DELETE "header" from sentence (1) and (a)
Reason
Sentence 5.8.3. (1) sizes headers and 5.8.3. (4) regulates the length.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Amend

Amendment
Change 5.8.3. as follows:
5.8.3. Branch Vents ans Continuous Vents

(1) A *branch vent*, and a *continuous vent* shall be in conformance with Table 5.8.C.
(2) The length of a *continuous vent* for the purpose of Table 5.8.C. shall be its *developed length* from the *wet vent* to a *vent stack, stack vent* or open air.
(3) The length of a *branch vent* for the purpose of Table 5.8.C. shall be the *developed length* of vent piping from the most *distant soil-or-waste pipe* connection to a *vent stack, stack vent*, or open air.

Change 5.8.3.(4) to 5.8.4.(4)

(4) The length of a *header* for the purpose of Table 5.8.C. shall be the *developed lenth* of vent piping from the most distant *soil-or-waste pipe* connection to open air. (See Apendix A.)

Reason
Delete all reference to headers since these requirements are repeated in Article 5.8.4.

---

140 **5.8.4.** **P.C.A.C.**
Recommendation: Amend

Proposed Change
Add to 5.8.4.

A stack vent must not be more than 1 size smaller than the wet vent it serves, when the wet vent is receiving discharge from fixtures located on 5 or more stories.
Reason
Feedback from the plumbing industry, owners and tenants have indicated the dry vent of a multi-storey wet vent is causing problems.

The main problem is that if too many fixtures on the wet vent are being used at the same time. the reduction at the dry vent forces air to push out water in traps at the top floor.

Submitted by: **Ken Harper**
453 W. 12th Avenue
Vancouver, B.C.
V5Y 1V4

Recommendation: Amend

Amendment
Change as follows:
A *stack vent* must be not less than the *size* of the *wet vent* it serves, when the *wet vent* has *fixtures* draining to it on more than 4 storeys.

Reason
City of Vancouver experiences is that the continuation of multi-storey wet vents should be full size to prevent drainage problems.

---

141 5.8.4.(3) & (4). **P.C.A.C. Recommendation: Reject**

Proposed Change
AMEND to read:

(3) A vent stack shall have a minimum size of one-half the size of the soil or waste stack at its base but shall not be less than a size of 2 inches.

(4) The minimum size of a stack vent shall be not less than one-half the size of the soil or waste stack at its base.

Reason
1-1/4" and 1-1/2" vents extending through 5 storeys do not provide an adequate flow of air due to frictional losses.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Existing code requirements are adequate.

---

142 6 **P.C.A.C. Recommendation: Reject**

Proposed Change
Potable water systems in other than residential dwelling shall be identified by markings that are permanent, distinct and easily recognized.

Reason
- Provide reference of standard/s acceptable to the Plumbing Code.
- At present, the Code permits markings to be of the designer's choice, which, due to wide variations, may result in unsafe piping installations due to non-familiarity by the installer and enforcement official.
- ANSI standard A 13.1 1981 is considered a good scheme for the identification of piping systems.
- Brady pipe markings systems meet ANSI Standards and should be given due consideration (See Brady attached).

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Reject**

Reason
Too design orientated.

---

143 6 **P.C.A.C. Recommendation: Reject**

Proposed Change
In hospitals, infirmaries, nursing homes and other such building washrooms shall be provided with automatic or foot operated water supply fixtures.

Reason
To reduce the possible occurrence of disease.

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Reject**

Reason
Responsibility of Health Department

---

144 6 **P.C.A.C. Recommendation: Reject**

Proposed Change
Building containing less than 9 sprinkler heads - the water supply for such sprinklers may be supplied from the domestic water system. Provided the required flow can be met.

Reason
- Provision for same in the B.C.B.C.
- To indicate a permitted method by users of the Plumbing Code.

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Reject**

Reason
Building Code item.

---

145 6

P.C.A.C.
Recommendation: Amend

Proposed Change
Subsection 6.1

At least one hose bib shall be provided to each residential building.

Reason
- No regulation for requirements in Building Code or Plumbing Code.
- Required in Residential Standards.
- High cost of installation in dwellings which have been completely finished.

Submitted by: **R.J. Mearns**

Recommendation: Amend

Amendment

Change as follows:
At least one hose bibb shall be provided for each building containing a residential occupancy.

Reason
Editorial change.

---

146 6

P.C.A.C.
Recommendation: Reject

Proposed Change
Subsection 6.1

Where a water supply serves both a sprinkler system and a water distribution system, control valves shall be provided so that either system can be shut off independently.

Reason
- To indicate required valving on a combined water service.
- Is required in B.C.B.C. 1985 3.2.5.5.(1).
- To prevent conflict between B.C.B.C. and B.C.P.C.

Submitted by: **R.J. Mearns**

Recommendation: Reject

Amendment

Reason
N.F.P.A. standards contain valve requirements.

---

147 6

P.C.A.C.
Recommendation: Reject

Proposed Change
Subsection 6.1.1.(3)

Hot and cold water shall be provided in all occupancies with piped water supply where washrooms are required under the B.C.B.C.

Reason
- Provision for hot water requirements in B.C. Building Code is only for dwelling units.
- Occupational Environment Regulations require hot water in at least one washroom.
- Consolidation and clarification of hot water requirement.
- Unsanitary conditions caused by lack of hot water.
- Some occupancies not provided under existing regulations.
- B.C. Food Premises Regulation require hot water in food premises.

Submitted by: **R.J. Mearns**

Recommendation: Reject

Amendment

Reason
Requirements are contained within the Factories Act.

---

148 6 **P.C.A.C.**
Recommendation: Reject

Proposed Change
Subsection 6.1.3.(1)

Where individual well delivers less than 20 litres per minute per dwelling unit over a one hour period, not less than 900 litres of cold water storage shall be provided per dwelling unit.

Reason
- To ensure adequate potable water to dwelling with no piped water from a public service.
- Storage requirement not provided for in Code.

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Reject**

Reason
Not a safety requirement.

---

149 6 **P.C.A.C.**
Recommendation: Reject

Proposed Change
Subsection 6.1.3.(1)

Every plastic water service which serves more than one building on one property shall have a tracer wire placed alongside the entire length of the water service and terminated at the shut-off, where the pipe enters the building

Reason
- To provide a means to locate the service in an emergency.
- For locating the service prior to digging.
- Plastic gas pipe has a similar requirement.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver B.C.
V7M 1H9

Amendment **Recommendation: Reject**

Reason
Unjustifiable expense for water service.

---

150 6.1 **P.C.A.C.**
Recommendation: Amend

Proposed Change
In single family dwellings, hot and cold water supply to each plumbing fixture shall be provided with accessible shut off valves located as close as possible to each fixture.

Reason
- City of Vancouver Bylaw 5966 requires shut off to each fixture.
- Numerous complaints from owners regarding inconvenience caused by having to shut off all water while servicing a sink, tub or basin.
- Proposal would permit any fixture to be removed without disruption to the entire plumbing system.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver B.C.
V7M 1H9

Amendment **Recommendation: Amend**

Change as follows:
6.1.3.(8) In a single-family house the hot and cold water supply to each *fixture*, except for a tub filler and a shower valve, shall be provided with accessible shut-off valves located as close as possible to each *fixture*.

Reason
Separate shut off valves for tub fillers and shower valves are unnecessary.

---

151 6.1 **P.C.A.C. Recommendation: Reject**

Proposed Change
Water service piping shall have a minimum 24" of cover. The depth of water pipe must be below the frost line, and will be determined by climatic conditions and specified by the local A.H.J.

Reason
- To clarify a minimum depth of bury.
- Protect the water service from frost damage.
- To prevent intermittent water supply during a frost condition.

Submitted by: **R.J. Mearns**
141 WEST 14TH
NORTH VANCOUVER B.C.
V7M 1H9

Recommendation: Reject

Amendment

Reason
Proposal #74 adequately deals with this item.

---

152 6.1.1.(2). **P.C.A.C. Recommendation: Reject**

Proposed Change
DELETE AND SUBSTITUTE:

6.1.1. (2) Every faucet or combination faucet supplying hot water shall have the hot water control installed to the left of the cold water control.

Reason
Current Code does not recognize combination faucets and faucets not on fixtures.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Reject

Amendment

Reason
Code Adequately covers this item.

---

153 6.1.1.(3) **P.C.A.C. Recommendation: Reject**

Proposed Change
Add the following:

Bathtub control valves must be located so as to be within reach from the seated position.

Reason
Faucets that have been installed at the bottom of bathtubs are not only a hazard to everyone but are very bad for older people that cannot move fast enough to close off a tap that might be running hot water.

Submitted by: **Marie Moscovitch**
Apt. 1401 1972
West Vancouver B.C.
V7V 1B5

Recommendation: Reject

Amendment

Reason
Proposal is not cost effective.

---

154 6.1.2. **P.C.A.C. Recommendation: Accept**

Proposed Change
ADD to article:

The connection to permit the system to be blown out shall be at the upstream end of the water distribution system.

Reason
Amendment is necessary to achieve maximum intent.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

155 6.1.3.(1). **P.C.A.C. Recommendation: Accept**

Proposed Change
ADD To Sentence:

The shut-off valve shall be located within 0.5 m of an access opening or readily accessible.

Reason
To eliminate the inconvenience of consumers crawling through a crawlspace at the time of an emergency.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

156 6.1.3.(3). **P.C.A.C. Recommendation: Accept**

Proposed Change
CHANGE to read:

(3) Except for a single family house, every riser shall be provided with a shut-off valve located at the base of the riser.

Reason
"Source of supply" as used in the Sentence is the public system.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

157 6.1.3.(3) **P.C.A.C. Recommendation: Reject**

Proposed Change
6.1.3.(3) Hot and cold water supply pipes to all plumbing *fixtures*, tanks, appurtenances and devices shall be provided with accessible shut-off valves, located as close to the *fixtures* and equipment as possible, so installed that the *water system* may be shut off at any one *fixture*, tank, appurtenance or device without interference to others.

Reason
Inability to shut water off at individual fixtures results in excessive water damage.

Submitted by: **Mark Ryborg**
3339 Abbey Lane
Coquitlam, B.C.
V3P 1A3

Recommendation: Reject

Amendment

Reason
Proposal #150 more adequately covers this item.

---

158 6.1.3.(7). **P.C.A.C. Recommendation: Accept**

Proposed Change
AMEND to read:

(7) Every pipe that supplies a hot water tank shall be provided with a shut-off valve located immediately adjacent to the tank in the same space.

Reason
Valves should be visible when viewing the tank.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Accept

Amendment

Reason

---

159 6.1.4. **P.C.A.C. Recommendation: Reject**

Proposed Change
AMEND to read:

Every pipe that passes through an exterior wall to supply water to the exterior of the building shall be provided with a frost-proof hydrant or a stop-and-waste cock providing the stop-and-waste cock is not installed in an exterior wall.

Reason
A stop-and-waste cock should be located in a position where the upstream piping will not freeze.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Reject

Amendment

Reason
The code adequately covers this item.

---

160 **6.1.7.(2).** **P.C.A.C. Recommendation: Accept**

Proposed Change
DELETE completely.

DELETE reference to (2) to 6.1.7. (1).

DELETE "or" at end of (a).

DELETE 6.1.7. (3).

Reason
The snap-disc safety feature suffered from corrosion problems caused by condensation. Electrical controls should not be included in a Plumbing Code.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

161 **6.1.7.(9).** **P.C.A.C. Recommendation: Amend**

Proposed Change
REVISE to read:

(9) Every service water heater, storage-type shall be equipped with a vacuum relief valve.

Reason
The amendment maintains the current B.C.P.C. status and is much clearer to prevent implosion.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Amend**

Change as follows:
(9) Every storage type service hot water heater shall be equipped with a vacuum relief valve on the cold water supply.

Reason
To clarify the correct location of the vacuum relief valve.

---

162 **6.1.8.** **P.C.A.C. Recommendation: Reject**

Proposed Change
ADD new clause:EQUIPMENT RESTRAINTS

Every storage type service water heater shall be securely fastened to a load-bearing structural assembly to resist toppling.

Reason
Earthquake resistance precautions.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
The Provincial and Federal government agencies have distributed information to homeowners regarding earthquake proofing single family dwellings.

---

163 6.1.12

P.C.A.C. Recommendation: Reject

Proposed Change
Section 6.1.12.(1)
(A) as is
(B) as is
(C) as is
add (D) Thermometer

Reason
- To reduce the risk of scalding due to high temperatures.
- Provide a visual means of showing the temperature discharge from the tank.
- To show required and or desired water temperature.
- May limit the potential of Legionella Pneumophila growth if temperature of 140 F is maintained.

Submitted by: R.J. Mearns

Recommendation: Reject

Amendment

Reason
This item should be covered by product standards.

---

164 6

P.C.A.C. Recommendation: Amend

Proposed Change
Subsection 6.1.13.

Except for single family dwellings, manufactured air chambers shall be installed.

Reason
- Air chambers made from piping waterlog and therefore become ineffective.

- Manufactured air chambers installed under guidelines prevent the occurrence of frequent shut down required to drain and recharge the air chambers.

Submitted by: R.J. Mearns

Recommendation: Amend

Amendment
Change as follows:
6.1.8. Water Hammer. Provision shall be made to protect the *water distribution system* from the adverse effects of water hammer by the installation of manufactured air chambers. (See Appendix).

Reason

---

165 6.2

P.C.A.C. Recommendation: Reject

Proposed Change
Outdoor hose bibbs shall have a back siphonage backflow preventor.

Reason
- In the event that supply pressures become less than atmospheric, there is a high risk of cross connection while attached or submerged via a hose to (1) chemical sprayer; (2) tank containing non-potable liquids; (3) swimming pool.

Submitted by: R.J. Mearns

Recommendation: Reject

Amendment

Reason
Article 6.2.7. of the 1990 CPC includes this item.

---

166 6.2 **P.C.A.C.**
Recommendation: Reject

Proposed Change
Where a water supply serves both potable and fire protection system, the fire protection system shall be designed to prevent backflow into the potable water system.
Reason
- Clarify a requirement for backflow prevention when both water and fire protection system are served by a combined service.
- Would concur with the Canadian Plumbing Code.

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Reject**

Reason
NFPA Standards cover this item and Article 6.2.4. of the 1990 CPC.

---

167 6.2 **P.C.A.C.**
Recommendation: Reject

Proposed Change
In all buildings where two or more water distribution systems, one potabel and the other non-potable, are installed, each system shall be indentified by color marking or metal tags as required in ANSI A13.1
Reason
To preclude the possibility of cross connection.

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Reject**

Reason
Section 7 covers this item.

---

168 6.2 **P.C.A.C.**
Recommendation: Reject

Proposed Change
When a water heater extracts its heat through either a external or internal heat exchanger, double wall vented tubing is required.
Reason
To preclude the possibility of cross connection.

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Reject**

Reason
Responsibility of individual municipalities to enforce requirements for double wall heat exchangers.

---

169 6.2 **P.C.A.C.**
Recommendation: Reject

Proposed Change
Water pumps, filters, water softeners, water tanks and all other fixtures or devices liable to be in contact with potable water shall be kept permanently cleaned so as to prevent water contamination.
Reason
To ensure like devices are maintained in a sanitary condition.

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Reject**

Reason
Code mandate is new construction; not maintenance.

---

170 6.2.1 **P.C.A.C. Recommendation: Reject**

Proposed Change
Increase the potable water users list as per the attached example - Table L.

Reason
To increase the selection chart of locations which may require the installation of backflow prevention devices.

Submitted by: R.J. Mearns

Recommendation: Reject

Amendment

Reason
1990 C.P.C. Appendix References CSA B64.10-M88 backflow prevention devices-selection, installation, maintenance and field testing.

---

171 6.2.2. **P.C.A.C. Recommendation: Reject**

Proposed Change
1. A newly installed water supply system shall be thoroughly cleaned to ensure freedom from contamination before the system is put into operation.
2. The system shall be flushed with clean, potable water until no dirty water appears at the points of outlet.
3. Whenever authorized or required by the municipality, a water system may be disinfected by a water-chlorine solution containing at least 50 parts per million of chlorine or any other solution approved by the municipality.
4. After the solution has been allowed to stand for 24 hours, the system shall be flushed with clean, potable water until no chlorine remains in the water coming from the system.
5. The allowed standing time may be shortened for a higher degree of concentration.
6. The degree of concentration of the water-chlorine solution shall not exceed 200 p.p.m. and the standing time shall not be less than 3 hours.
7. The procedure shall be repeated if it is shown by a bacteriological examination that contamination still persists in the system.

Reason
- This is a requirement from the Province of Quebec Plumbing Code.
- Local authorities unable to enforce existing requirements due to absence of standards for clorination of water distribution systems.
- This proposal would provide minimum standard where required to meet the health and safety concerns of enforcement officials with regards to potable water.

Submitted by: R.J. Mearns

Recommendation: Reject

Amendment

Reason
Unenforceable requirement.

---

172 6.2.2. **P.C.A.C.**
Recommendation: Reject

Proposed Change
6.2.2. Separation of Water Service and Building Sewer and Drain:

(1) *Water service pipe* and the *building sewer* shall be separated by undisturbed or compacted earth.

(2) The *water service pipe* shall only be placed in the same trenth with the *building drain* and *building sewer* when installation in conformance with Sentences (3) and (4).

(3) The bottom of the *water service pipe* at all points shall be a minimum of 12 inches (305 mm) above the top of the sewer at its highest point.

(4) The water service pipe shall be placed on a solid shelf excavated at one side of the common trench.

Reason
To clarify that the building sewer and water service should be separated to reduce the possibility of contaminating the potable water supply assuming pipe failure.

Submitted by: **Doug McDonald**
333 Quebec Street
Victoria, B.C.
V8V 1X4

Amendment **Recommendation: Reject**

Reason
Not cost effective.

---

173 6.2.4. **P.C.A.C.**
Recommendation: Reject

Proposed Change
DELETE 6.2.4. (2) and ADD "standpipe systems" to 6.2.4. (1)
Reason
The requirement for a detector check valve with a metered by-pass is excessive to prevent backflow.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
The requirement for a detector check is one method: other methods are acceptable.

---

174 6.2.4.(1). **P.C.A.C.**
Recommendation: Reject

Proposed Change
Change to read:

An alarm check valve is the minimum Protection that shall be used to prevent backflow caused by back-siphonage or back pressure from fire sprinkler systems where water treatment is not added. The alarm check valve must be installed in conformance with NFPA 13 "Standards for the Installations of Sprinkler Systems"
Reason
Clarification

Submitted by: **Ken Harper**
453 W. 12th Avenue
Vancouver, B.C.
V5Y 1V4

Amendment **Recommendation: Reject**

Reason
CPC adequately covers this item.

---

175 6.2.4.(2). **P.C.A.C. Recommendation: Reject**

Proposed Change
Change to read:

A detector check valve with a resilient seated check valve on the metered bypass is the minimum protection that shall be used to prevent backflow caused by back-siphonage or back pressure from fire standpipe systems where water treatment is not added.

Reason
Clarification

Submitted by: **Ken Harper**
453 W. 12th Avenue
Vancouver, B.C.
V5Y 1V4

Recommendation: Reject

Amendment

Reason
CPC adequately covers this item.

---

176 6.2.7. **P.C.A.C. Recommendation: Reject**

Proposed Change
Add to 6.2.7.

Yard hydrants with underground drain ports shall have back-flow preventer installed upstream of hydrant.

Reason
To prevent back-siphonage of ground water through drain port.

Submitted by: **Ken Harper**
453 W. 12th Avenue
Vancouver, B.C.
V5Y 1V4

Recommendation: Reject

Amendment

Reason
Not cost effective.

---

177 6.2.10.(3). **P.C.A.C. Recommendation: Amend**

Proposed Change
AMEND to read:

(3) An atmospheric vacuum breaker shall be installed so that the critical level is at least the distance specified by the manufacturer but not less than 150 mm above the highest outlet or flood level rim of a fixture or tank.

Reason
I believe the current Code confuses air gaps with AVB's.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Amend

Amendment
Change as follows:
An atmospheric vacuum breaker shall be installed so that the critical level is at least the distance specified by the manufacturer.

Reason
Some vacuum breakers may be installed less than 150 mm above the flood level rim.

---

178 6.3 **P.C.A.C. Recommendation: Amend**

Proposed Change
6.3.3.(2).

Where fixtures are supplied with both hot and cold water, the hydraulic loads for maximum separate demand shall be 75% of the hydraulic load of the fixture unit given in Tables 6.3.A. and 6.3.B.

Reason

Submitted by: R.J. Mearns

Amendment **Recommendation: Amend**

Change as follows:
6.3.2.(3) Where *fixtures* are supplied with both hot and cold water, the hydraulic loads for maximum separate demands shall not be less than 75% of the hydraulic load of the *fixture units* given in Table 6.3.A. or 6.3.B. when using the detailed engineering design method.

Reason
Clarification.

---

179 6.3 **P.C.A.C. Recommendation: Amend**

Proposed Change
Unless otherwise required by design of installation, a maximum velocity of 6 feet per second shall be maintained.

Reason
- Concern regarding erosion of piping caused by high velocities.
- Reduce complaints regarding noise in piping due to high velocity.

Submitted by: R.J. Mearns

Amendment **Recommendation: Amend**

Change as follows:
Table A.6.1. should be relocated to the code body and changed to reflect maximum velocities of 6 feet per second.

Add: 6.3.4.(4) Except for a single family dwelling containing 3 bathroom groups or less every part of a *water system* shall be sized in accordance with good engineering practice or in accordance with Table 6.3.C.

Reason
Add exception for single family dwellings.

---

180 6.3 **P.C.A.C. Recommendation: Reject**

Proposed Change
Add to Table 6.3.A.

Lawn sprinkler as one half fixture unit.

Reason
- To provide a guideline for sizing lawn sprinkler systems.
- To ensure adequate pipe sizing for plumbing system.

Submitted by: R.J. Mearns

Amendment **Recommendation: Reject**

Reason
Lawn sprinklers are not part of a plumbing system.

---

181 6.3 **P.C.A.C. Recommendation: Reject**

Proposed Change
Subsection 6.3.1.

Every water distribution system shall be designed to provide peak demand flow when the flow pressures at the supply opening conform to Table 6.3.A.

Reason

Submitted by: R.J. Mearns

Amendment **Recommendation: Reject**

Reason
Article 6.3.1. of the C.P.C. covers this item.

---

182 6.3 **P.C.A.C. Recommendation: Reject**

Proposed Change
Subsection 6.3.2.(1).

Except as provided in sentence (3), the hydraulic load of a fixture or device that is listed in Table 6.3.A. shall be the number of fixture units given in the table.

Reason

Submitted by: **R.J. Mearns**

Recommendation: Reject

Amendment

Reason
Article 6.3.2. of the C.P.C. covers this item.

---

183 6.3. **P.C.A.C. Recommendation: Reject**

Proposed Change
Subsection 6.3.2.(3).

The hydraulic load for a fixture or device not listed in Table 6.3.A. shall be determined from Table 6.3.B. based on the nominal size of the supply fitting or manufacturers recommendations.

- Delete when using the detailed engineering design method.
- Concur with the Canadian Plumbing Code.
- Provide for peak demand flow.

Reason

Submitted by: **R.J. Mearns**

Recommendation: Reject

Amendment

Reason
This item is adequately covered by the C.P.C.

---

184 6.3. **P.C.A.C. Recommendation: Reject**

Proposed Change
Subsection 6.3.3.(1)

Where the static pressure may exceed 585 kPa, a pressure reducing valve with pressure gauge shall be installed to limit the maximum static pressure at a fixture to not more than 585 kPa.

Reason
- When required, all pressure reducing valves should come with a pressure gauge to provided visual inspection of the house piping water pressure.
- Would provide indication of PRV failure.
- Prevent unsafe pressure to fixtures, hot water tanks, piping and hose bibbs.
- May extend the usefulness of the plumbing system.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver B.C.
V7M 1H9

Recommendation: Reject

Amendment

Reason
Not cost effective.

---

185 6.3. P.C.A.C. Recommendation: Reject

Proposed Change
Section 6.3.4.(1).

That the Appendix of the Code provide an example/s of pipe sizing.

Attached is a proposal for the Canada Plumbing Code.
Reason
To assist the user of the code on how to size a water distribution system.

Submitted by: R.J. Mearns

Amendment Recommendation: Reject

Reason
C.P.C. covers this item.

---

186 6.3.2.(3). P.C.A.C. Recommendation: Reject

Proposed Change
ADD to Sentence:

(3) Except for systems that are sized to Table 6.3.C., where fixtures are supplied with both hot and cold water, the maximum separate demand shall be 75 per cent of the hydraulic load of the fixture units given in Table 6.3.A. and 6.3.B.

Reason
The Table 6.3.C. (found in the Appendix, but proposed for the body of the Code) was not designed to accommodate the 75% rule.

See attached information.

Submitted by: John Elsdon
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment Recommendation: Reject

Reason
Covered under Proposal #178.

---

187 6.3.3. P.C.A.C. Recommendation: Accept

Proposed Change
ADD new Sentences:

6.3.3. (2) A pressure reducing valve over 1 in. in size shall be equipped with:

(a) gate valves immediately adjacent to the inlet and outlet,
(b) a valved minimum 1 in. size by-pass line,
(c) a pressure gauge to indicate the reduced pressure,
(d) the means for ready removal for service replacement, and
(e) a strainer with a removable basket.

6.3.3. (3) A pressure reducing valve shall be sized in accordance with the manufacturer's recommendations.

Reason
Current B.C. regulations should be continued

Submitted by: John Elsdon
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment Recommendation: Accept

Reason

---

188 **6.3.4.** **P.C.A.C.**
Recommendation: Reject

Proposed Change
ADD 6.3.4. (4):

(4) Every part of a water system shall be sized in accordance with 6.1.1. (1) or Tables 6.3.C. based on recommended velocities. (see Appendix A)

ADD Table A-6.1. as amended as 6.3.C.

ADD New Table 6.3.C. attached.

Reason
Table 6.3.C. is currently used in the B.C.B.C. and has proven to be cost effective and beneficial and preferred over engineered systems. Velocity considerations will follow manufacturers' design criteria.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Water sizing tables in C.P.C. appendix will be placed in body of code.

---

189 **6.3.4.** **P.C.A.C.**
Recommendation: Reject

Proposed Change
DELETE 6.2.4.

Amend 6.2.3. (2) by deleting:

"Except as provided in Article 6.2.4.".

Reason
Backflow protection should be regulated in the normal manner and not by special regulations. There are many ways of serving a fire protection system that will cause health problems.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Article 6.2.4. permits an acceptable method of protection for sprinkler systems.

---

190 **6.3.4.(3)** **P.C.A.C.**
Recommendation: Reject

Proposed Change
Single family dwelling water distribution system shall be sized in accordance with good engineering practise or by Table 6.3.C. or Table No. 1 and No. 2 for PB piping.

Reason
1. No provision for pipe sizing in the Plumbing Code for single family dwellings.
2. See Appeal No. P-173 dated December 6, 1984.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver, B.C.
V7M 1H9

Amendment **Recommendation: Reject**

Reason
Covered under proposal #179.

---

191 7.2.1.

P.C.A.C. Recommendation: Reject

Proposed Change

Non-potable water piping shall be identified by markings that are permanent, distinct and easily recognized (see appendix).

Reason

1. Plan submissions are still metric and imperial.
2. Would decrease risk of error in plan checking when making reference to Plumbing Code Tables.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver, B.C.
V7M 1H9

Amendment **Recommendation: Reject**

Reason

Subsection 7.2 of the C.P.C. covers this item.

---

192 7.3.2.(1).

P.C.A.C. Recommendation: Reject

Proposed Change

An outlet from a non-potable water system shall not be located where it can discharge into:

(a) a sink or lavatory,
(b) a fixture into which an outlet from a potable water system is discharged, or
(c) a fixture that is used for a purpose related to the preparation, handling or dispensing of food, drink or products that are intended for human consumption.

Reason

- An error in judgement by the enforcement official could result in a health hazard to the user/s of the above items (a), (b), (c).
- Proposal would concur with the (1) Canadian Plumbing Code (2) Alberta Plumbing Code.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver B.C.
V7M 1H9

Amendment **Recommendation: Reject**

Reason

Section 7 of the C.P.C. covers this item.

---

193 A.

P.C.A.C. Recommendation: Reject

Proposed Change

Appendix - Symbols & Abbreviations

That the Plumbing Code provide for a greater selection of standardized plumbing and piping related symbols.

Reason

- Symbols used on plans at present are of the designer's choice, which, due to wide variations, can result in unsafe piping installations due to non-familiarity by the installer.
- ASPE Data Book, Chapter 21, dated July 1989 should be considered for reference in this proposal.

Submitted by: **R.J. Mearns**

Amendment **Recommendation: Reject**

Reason

Not a code item. A C.S.A. Standard would be more appropriate.

---

194 A. 2.4.1. **P.C.A.C. Recommendation: Accept**

Proposed Change
Designate the three shetches as (a) (b) & (c). Add "not permitted" under (b).
Reason
Confusing as is.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Accept

Amendment
Reason

---

195 A. 2.4.2. **P.C.A.C. Recommendation: Accept**

Proposed Change
Designate sketches by lettering. Add "not permitted" below "(c)". List Pittings as "T.Y.'s"

Reason
Confusing

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Accept

Amendment
Reason

---

196 A.2.5, A.2.6 & A.2.7. **P.C.A.C. Recommendation: Amend**

Proposed Change
Item PVC water pipe.

Column 1 does not agree with Article 2.5.6.
Reason
Error in compilation.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Amend

Amendment
Change as follows:
Remove Series Designation for PVC water pipe from Column #1 of Summary of Pipe and Fittings Applications.

Reason
To agree with proposal #43.

---

197 A. 4.5.1 (3)(b). **P.C.A.C. Recommendation: Accept**

Proposed Change
The trap shown is not a floor drain because it is receiving the discharge from fixtures not from "the floor". Change "floor drain" to "trap".
Reason
Error in interpretation.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Recommendation: Accept

Amendment
Reason

---

198 A.4.5.5. P.C.A.C. Recommendation: Amend

Proposed Change
That minimum pipe size be shown on the branch piping which serves as the trap primer.
Reason
Diagram and/or Code does not indicate pipe sizing requirements.

Submitted by: R.J. Mearns
141 West 14th Street
North Vancouver B.C.
V7M 1H9

Amendment Recommendation: Amend

Change drawings in Appendix to indicate trap primer tubing to be 1/4" O.D.

Reason
To clarify minimun requirements for pipe size.

---

199 A. 5.1.1.(3). P.C.A.C. Recommendation: Accept

Proposed Change
Fixture drains incorrectly addressed as "trap arms" (see definition)
Reason
Error.

Submitted by: John Elsdon
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment Recommendation: Accept

Reason

---

200 A.5.2.2.(3). P.C.A.C. Recommendation: Reject

Proposed Change
First Sketch - Wrong reference for 'B', should be 2.4.2. (2).
Relief vents not adequately addressed.
Reason
Error in compilation.

Submitted by: John Elsdon
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment Recommendation: Reject

Reason
Use Sketches from B.C. Plumbing Code - 1985.

---

201 A.5.4.2. (1) & (2). P.C.A.C. Recommendation: Accept

Proposed Change
Last sentence of wording under sketches repeats 1st sentence.
Reason
No need for repetition.

Submitted by: John Elsdon
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment Recommendation: Accept

Reason

---

202 A.5.8. **P.C.A.C. Recommendation: Accept**

Proposed Change
Drawing needs several changes to reflect proposed code and the proposed amendments.
Reason
Revisions required to reflect changes

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

203 A.5.8. **P.C.A.C. Recommendation: Reject**

Proposed Change
Delete 3rd sentence of "Relief Vent" "Vent Length". Delete "The exception . . . . . vents is a stack vent vent stack header or open air".
Reason
Incorrect statements.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Use information from B.C. Plumbing Code - 1985.

---

204 A. 5.8.1. **P.C.A.C. Recommendation: Reject**

Proposed Change
Revise wording by deleting the word "not" on both sketches. Sketches should be sized.
Reason
All fixtures shown on the sketches are wet vented and should be counted.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Reject**

Reason
Use information from B.C. Plumbing Code - 1985.

---

205 A. 6.1.8. **P.C.A.C. Recommendation: Accept**

Proposed Change
A.6.1.8. should remove all references to air chambers made from piping and refer only to manufactured water hammer arrestors certified by PD1-WH201.
Reason
PD1-WH201 provides test results from recognized agencies than clearly show air chambers made from piping are inadequate.

Submitted by: **John Elsdon**
2167 Oak Bay Avenue
Victoria, B.C.
V8R 1G2

Amendment **Recommendation: Accept**

Reason

---

206 **Appendix B**

P.C.A.C.
Recommendation: Accept

Proposed Change

Equivalent imperial values of tabular matter be reinstated for all tables in the Plumbing Code.

Reason

1. Plan submissions are still metric and imperial.
2. Would decrease risk of error in plan checking when making reference to Plumbing Code Tables.

Submitted by: **R.J. Mearns**
141 West 14th Street
North Vancouver, B.C.
V7M 1H9

Amendment

Recommendation: Accept

Reason

Appendix

Table of Contents

Base Document 1985 B.C. Plumbing Code Requirements to be Included in The 1990 B.C. Plumbing Code	A.1 to A.4
Special Waste System Proposal Reference # 83	A.5
B.C. Plumbing Code Challenge/Amendment Form	A.6

Base Document – 1990 B.C. Plumbing Code Change Process

Add the following references from the 1985 Province of British Columbia Plumbing Code to the 1990 Canadian Plumbing Code:

SUBSECTION 1.3 DEFINITIONS AND ABBREVIATIONS

Acceptable
Accpted
Accessible
Alarm check valve
Atmospheric vacuum breaker
Authority having jurisdiction
Bathroom group private
Bathroom group public
Cleanout
Emergency floor drain
Permit
Private use
Public use
Service water heater

SUBSECTION 1.4 EQUIVALENTS

Sentence 1.4.1.(1) and Sentence 1.4.2.(1).

SUBSECTION 1.5 PLUMBING FACILITIES

Article 1.5.1.

SUBSECTION 1.6 SERVICE CONNECTIONS

Sentence 1.6.1.(2) and Article 1.6.3.

SUBSECTION 1.7 LOCATION OF FIXTURES

Sentence 1.7.1.(1) and (2)

SUBSECTION 1.9 INSPECTION AND TESTING

SUBSECTION 2.1 GENERAL

Article 2.1.1.
Sentence 2.1.7.(1) and (2)

SUBSECTION 2.2 FIXTURES

Sentence 2.2.3.(1)

SUBSECTION 2.4 PIPE FITTINGS

Sentence 2.4.2.(1)

SUBSECTION 2.5 NON-METALLIC PIPE AND FITTINGS

Clause 2.5.9.(1)(d)
Sentence 2.5.9.(2)

SUBSECTION 2.6 FERROUS PIPE AND FITTINGS

Clause 2.6.7.(1)(c)

SUBSECTION 2.7 NON-FERROUS PIPE AND FITTINGS

Table 2.7.A.

SUBSECTION 2.8 JOINTING MATERIALS

Sentence 2.8.3.(3)

SUBSECTION 2.9 MISCELLANEOUS MATERIALS

Sentence 2.9.3.(1)
Sentence 2.9.5.(1) & (2)
Article 2.9.6.
Sentence 2.9.8.(3)

SUBSECTION 3.3 JOINTS AND CONNECTIONS

Sentence 3.3.10.(1)

SUBSECTION 3.4 SUPPORT OF PIPING

Sentence 3.4.5.(4)

SUBSECTION 3.5 PROTECTION OF PIPING

Articles 3.5.4., 3.5.6., and 3.5.7.

SUBSECTION 3.6 TESTING OF DRAINAGE AND VENTING SYSTEMS

Sentence 3.6.1.(1) and (2)
Sentence 3.6.2.(1)
Article 3.6.3.
Sentence 3.6.6.(1) and (2)

SUBSECTION 3.7 TESTING OF POTABLE WATER SYSTEMS

Sentence 3.7.1.(1) and (3)
Sentence 3.7.2.(1)

SUBSECTION 4.2 CONNECTIONS TO DRAINAGE SYSTEMS

Clause 4.2.1.(i)
Sentences 4.2.1.(2), (3), and (5).

SUBSECTION 4.4 TEATMENT OF SEWAGE AND WATER

Article 4.4.2.
Sentence 4.4.3.(1)

SUBSECTION 4.5 TRAPS

Clause 4.5.1.(3)(c)

SUBSECTION 4.6 ARRANGEMENT OF DRAINAGE PIPING

Sentence 4.6.1.(2)
Sentence 4.6.4.(1)

SUBSECTION 4.7 CLEANOUTS

Sentences 4.7.1.(8) and (9)
Table 4.7.A.

SUBSECTION 4.8 MINIMUM SLOPE AND LENGTH OF DRAINAGE PIPES

Article 4.8.2.

SUBSECTION 4.9 SIZE OF DRAINAGE PIPES

Sentence 4.9.1.(4)
Sentence 4.9.3.(4)
Table 4.9.A.

SUBSECTION 4.10 HYDRAULIC LOADS

Sentence 4.10.3.(2)
Sentence 4.10.4.(1)
Article 4.10.9.
Article 4.10.11.
Sentence 4.10.12.(1) and (2)

SUBSECTION 6.1 ARRANGEMENT OF PIPING

Article 6.1.4.
Article 6.1.6.
Sentence 6.1.7.(1)
Sentences 6.1.12.(2), (3), (4), (5), (6), (7) and (8)

SUBSECTION 6.3 SIZE AND CAPACITY OF PIPES

Sentence 6.3.2.(2) and (3)
Sentences 6.3.3.(1), (2) and (3)
Sentence 6.3.4.(1)
Table 6.3.C.

Delete the following referenced from the 1990 Canadian Plumbing Code:

Article 1.6.4. Separate Services

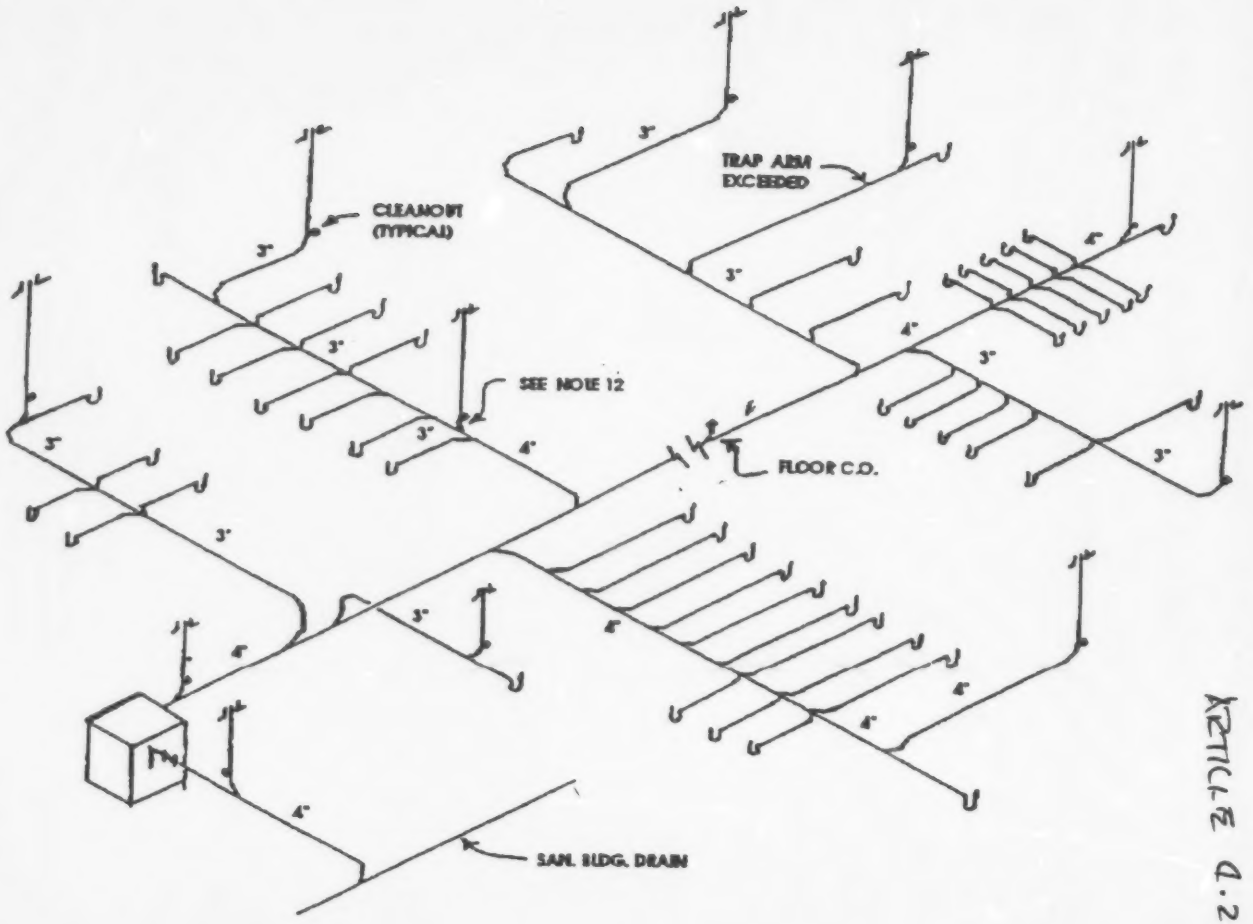
Article 4.6.5. Mobile Home Sewer Service

4.2.1.

SPECIAL WASTE SYSTEM

- P.I.A.B.C. -

1. System restricted to discharge from product display cases, ice machines, cooler condensate, emergency discharge from heat reclaim pumps.
2. The hydraulic load for traps in special systems shall be:
   (a) 3 F.U. for a 3 inch trap
   (b) 4 F.U. for a 4 inch trap
3. All drainage branches shall be graded at minimum 1 in 50 for pipes up to 3" size and 1 in 100 for 4" and over.
4. Trap arms shall have a downward slope in the direction of flow of minimum 1 in 50 and shall not exceed pipe diameter.
5. The hydraulic load drained to branches shall conform to Table 4.10(c) of B.C.P.C.
6. Future outlet pipes shall have a developed length not greater than 900 mm.
7. Cleanouts shall be installed in accordance with subsection 4.7 of B.C.P.C. and be readily accessible.
8. A reduction of pipe size on a horizontal branch shall leave a vent at the point of reduction.
9. All vents to be minimum 1 1/2 inch.
10. Any dry vent shall rail off the top of horizontal waste pipe where possible.
11. Heat reclaim trenches shall have an emergency pumped drain with alarm system.
12. Special system sump shall be minimum 24" diameter up to 48" in depth. Larger sumps required for greater depths.
13. Sump to have 18" liquid depth and be provided with backwater valve on outlet.



50 DRAINS - 150 F.U.

ARTICLE 4.2.1.

British Columbia Plumbing Code
Code Change Challenge / Amendment

Please print or type:-

Code reference number: _____

Other references affected: _____

_____

_____

Full text of proposed change:

N.B. All proposals must be justified and technically substantiated.

Reason / justification & technical substantiation for proposed change:

Attach additional sheet(s) if required.

Submitted by: Mr/Mrs/Ms. First Name Last Name

Name: _____

Representing: _____

Tel: ( ) _____

Street: _____

City/ Town: _____

Province: _____

Postal Code: _____

Please return completed form to :-
Building Standards Branch,
Ministry of Municipal Affairs,
Recreation and Culture,
800 Johnson Street,
Victoria, B.C.
V8V 1X4.

Office use only

Proposal Ref. Number: _____

Date of Receipt: _____